Citify and BFC Pty Ltd C/ - Future Urban Group

Demolition of existing structures, removal of two significant and one regulated tree. Construction of six, two storey residential dwellings and a seven storey mixed use building containing five commercial tenancies, residential apartments, landscaping, ancillary car parking and associated building work.

248 Unley Road, Hyde Park

090/M005/18

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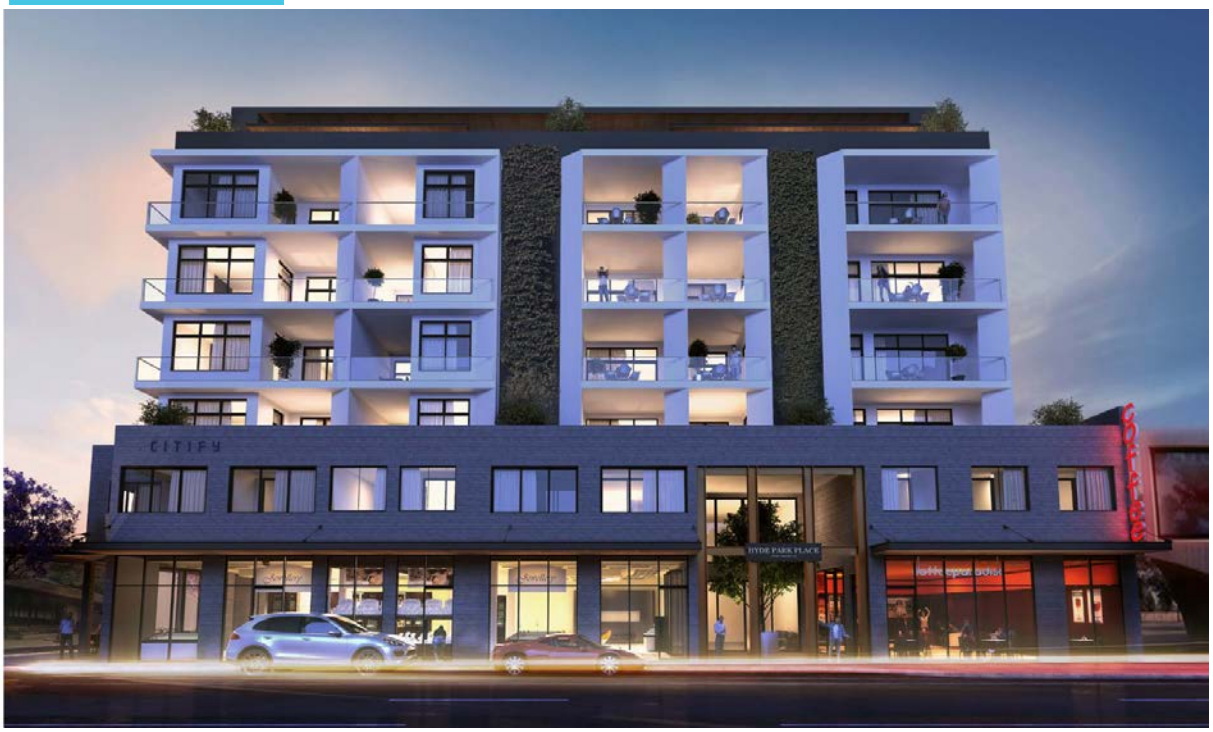

CITIFY
HYDE PARK PLACE


6
PERSPECTIVE -
TOWNHOUSES

OVERVIEW

Application No	090/M005/18
Unique ID/KNET ID	2018/10998/01 Appian 3209
Applicant	Citify and BFC Pty Ltd C/- Future Urban Group
Proposal	Demolition of existing structures, removal of two significant and one regulated tree. Construction of six, two storey residential dwellings and a seven storey mixed use building containing five commercial tenancies, residential apartments, landscaping, ancillary car parking and associated building work.
Subject Land	248 Unley Road, Hyde Park
Zone/Policy Area	Urban Corridor Zone – High Street (Unley Road) Policy Area 20
Relevant Authority	State Commission Assessment Panel
Lodgement Date	03 May 2018
Council	City of Unley
Development Plan	City of Unley Development Plan [Consolidated 19 December 2017]
Type of Development	Merit
Public Notification	Category 2
Representations	Five (5)reps receive with three (3) wishing to be heard
Referral Agencies	Commissioner of Highways (DPTI) and Government Architect
Report Author	Karl Woehle – Planning Officer
RECOMMENDATION	Development Plan Consent subject to conditions

EXECUTIVE SUMMARY

The applicant seeks Development Plan Consent for the demolition of existing structures, removal of two significant and one regulated tree. The construction of six, two storey residential dwellings and a seven storey mixed use building containing commercial/retail tenancies, residential apartments, ancillary car parking and associated building work in the High Street (Unley Road) Policy Area of the Urban Corridor Zone at 248 Unley Road, Hyde Park.

The proposed development is a merit kind of development that triggers a statutory referral to the Government Architect (GA), Commissioner of Highways (DPTI) and a non-mandatory referral to the City of Unley. The application is a Category 2 form of development. During the public notification period six (6) representations were received, five (5) were valid.

The proposed mixed-use building is 7 storeys or 24.5m to the roofline, which exceeds the maximum height of 18.5 metres or 5 storeys for the High Street (Unley Road) Policy Area. It is acknowledged that the built form of the mixed-use building is contained within the 30 degree envelope plane, consistent with PDC 13 Urban Corridor Zone. The mixed use building is sited approximately 26-32 metres from the adjoining Residential Streetscape (Built Form) Zone to the west, which is considered to provide adequate separation and minimises any unreasonable interface impacts. The Government Architect on balance supports the proposed height, as the proposal includes two storey residential townhouses along the western boundary which provides a positive transition with the existing residential properties.

The podium and tower element of the mixed-use development breaks down the built form and visual mass of the building, which is further complemented by the extensive soft landscaping. The proposed materials utilised within the proposal responds to the

immediate locality and is supported by the Government Architect. It is acknowledged that the overall design and appearance of the proposed development in principle is supported by the Government Architect. Council are also of the opinion that the proposal is positive and exhibits quality design for Unley Road and the site context.

The proposal generally achieves appropriate performance outcomes in respect to technical matters such as pedestrian and vehicle access, bicycle parking, residential car parking provisions, energy efficiency, waste management and building services. The residential apartments generally exceed the minimum apartment size and the shortfall in private open space is complemented by the communal open space on the second floor. The proposed development generally reflects a high level of residential amenity.

Notwithstanding the height and minor shortfalls of the development, the proposal is considered to generally satisfy the policy provisions of the High Street (Unley Road) Policy Area and relevant development control policies. Council are of the opinion that the nature of the large scale mixed use development generally accords with the Urban Corridor Zone intent and commends the applicant's positive response and sensitive refinement towards achieving a good design outcome. It is considered that the proposed development is not at significant variance with the Development Plan and warrants Development Plan Consent subject to conditions.

ASSESSMENT REPORT

1. BACKGROUND

1.1 Strategic Context

In October 2013, the Stage 3A Main Corridors and Mixed use and Residential Vitalisation (Greenhill and Unley Roads) Development Plan Amendment (DPA) was gazetted, which allows for medium density residential living above mixed use development

This rezoning included the introduction of the *Urban Corridor Zone* within the City of Unley to be rolled out over two of the City's major corridors in Greenhill Road and Unley Road. The policies were introduced to encourage a new form of urban living that enables more people to enjoy the benefits of an inner city lifestyle.

Policies encourage mixed-use forms of development complemented by well-designed and contemporary housing close to public transport, jobs and vibrant places. Two policy areas were introduced, including the High Street (Unley Road) Policy Area applicable to this site.

The DPA also included the introduction of the Air and Noise Emission Overlay that enables applicants to move noise assessment to the building stage of the approval process. This Overlay also contains planning policies to protect sensitive development from noise and air emissions generated from major transport corridors and mixed land use. The designated noise source in this case is Unley Road.

1.2 Pre-Lodgement Process

The applicant did not participate in the pre-lodgement process. It is noted the Development Assessment Commission previously granted Development Plan Consent for (DA 090/M003/15) a 7 storey mixed use building comprising of retail, 140 apartment and ten (10) two storey townhouses. The previous application was approved across a larger amalgamation of sites between Hart and Opey Avenue.

2. DESCRIPTION OF PROPOSAL

The proposal consist of six, two storey residential dwellings and a seven storey mixed use building containing commercial/retail tenancies, residential apartments, landscaping, ancillary car parking and associated building works.

Application details are contained in the ATTACHMENTS.

A summary of the proposal is as follows:

<table>
<tr><td>Land Use Description</td><td>Residential dwellings and mixed use development containing commercial/ retail, residential apartments and ancillary car parking.</td></tr>
<tr><td>Building Height</td><td>Mixed use development – 7 storey / 24.5 metres to the roofline
Residential dwellings – 2 storey / 6.4 metres to the roofline</td></tr>
<tr><td>Description of levels</td><td>Mixed use development
Basement levels: Building services, storage cages, bicycle racks and car parking
Ground Floor: Commercial/retail tenancies, residential apartment foyer, building services, waste services, bicycle parking, car parking, landscaping and 6- 2 storey townhouses
Levels 1-6: A total of 59 residential apartments consist of 12 Studio Apartments, 5 one bedroom apartments, 17 two bedroom apartments and 25 three bedroom apartments.</td></tr>
<tr><td>Apartment floor area (excluding balconies)</td><td><table><tr><th>Dwelling Type</th><th>Floor Area (excluding POS)</th></tr><tr><td>Studio apartments</td><td>43-53 square metres</td></tr><tr><td>1 Bedroom apartments</td><td>54 square metres</td></tr><tr><td>2 Bedroom apartments</td><td>67- 80 square metres</td></tr><tr><td>3 bedroom apartments</td><td>89-167 square metres</td></tr></table></td></tr>
<tr><td>Site Access</td><td>Vehicle parking is accessed via Opey Avenue located to the south of the development site. Pedestrian and bicycle parking can be gained from Unley Road and Opey Avenue. A strategic link with the adjoining development has been proposed, which would provide a north-south link from Hart Avenue to Opey Avenue.</td></tr>
<tr><td>Car and Bicycle Parking</td><td>Vehicle and bicycle parking is contained wholly in the proposed development and is not visible from the primary street frontage</td></tr>
<tr><td>Encroachments</td><td>There are encroachments in the form of canopies over Unley Road and Opey Avenue</td></tr>
<tr><td>Staging</td><td>The development has been proposed in the following stages including:
Demolition of the existing structures and construction of mixed use building
Construction of the residential flat buildings
Construction of Dwelling A, Dwelling B and Dwelling C</td></tr>
</table>

3. SITE AND LOCALITY

3.1 Site Description

The subject site is located at 248 Unley Road, Hyde Park. The subject site consist of five contiguous allotments located on the western side of Unley Road. Opey Avenue is located to the immediate south of the subject site. The development site is rectangular in shape and has a 38.5 metre frontage to Unley Road, a 66.8 metre frontage to Opey Avenue and a total site area of approximately 2,849 square metres.

The three allotments fronting Unley Road contain commercial tenancies which has a floor area of approximately 1627 square metres and associated car parking to the front of the commercial tenancies which is gained via Unley Road.

There are two allotments fronting Opey Avenue, one allotment contains a single storey residential building that has been repurposed to an office. The adjoining allotment on the western side of the building is a sealed carpark which is accessed via an existing crossover on the northern side of Opey Avenue.

Lot No	Section	Street	Suburb	Hundred	Title
A16	D736	Unley Road	Hyde Park	Adelaide	5380/231
A84	F10798	Opey Avenue	Hyde Park	Adelaide	5380/235
A85	F10798	Unley Road	Hyde Park	Adelaide	5380/236
A86	F10798	Unley Road	Hyde Park	Adelaide	5380/238
A87	F10798	Unley Road	Hyde Park	Adelaide	5380/238

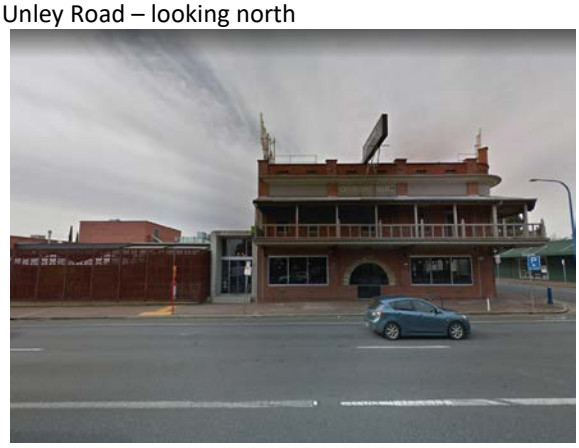
Figure 1 - Location Map
The subject site gains vehicle access via Opey Avenue and Unley Road

Figure 2: Site Photographs

Unley Road – looking west to subject land

Unley Road – looking north

Unley Road – looking south



Unley Road - looking east

Opey Avenue – looking west

Opey Avenue – looking east to Unley Road

Adjoining Residential Dwelling on western boundary

Unley Road – looking northwest at subject site

3.2 Locality

The locality is characterised by a mixture of land-uses, which range from commercial, retail and residential uses. The site is bound by Unley Road to the east and Opey Avenue to the South. Unley Road is a two way arterial road which supports two lanes of vehicle traffic and a bicycle lane in both directions. Opey Avenue is approximately 8m wide and supports one lane of vehicle traffic in both directions.

Unley Road is generally characterised by narrow frontage commercial buildings with majority of the buildings exhibiting little to no setback to the Unley Road. Many of these buildings are single storey and some of which are heritage listed. The Local Heritage listed Soldiers Memorial Garden is located approximately 100 metres north of the subject site and the State and Local Heritage listed Unley Town Hall and Church are located a further 100 metres north. The built form in Opey Avenue is characterised by low scale character fronted residential dwellings.

4. COUNCIL COMMENTS

4.1 City of Unley

Advice was sought from Council administration regarding technical matters. The following points were raised for consideration:

- Building over height;
- Inadequate on-site visitor parking provision and allocation of basement parking for commercial tenants;
- Opey Avenue traffic and on-street parking management;
- Overlooking minimisation;
- Significant and regulated tree loss;
- Podium façade detailing and arrangement of footpath canopies;
- Building setbacks to Opey Avenue for additional landscaping;
- Extent and location of trees and landscaping, including internal driveway, western zone boundary setback, correct location details and species selection;
- Unley Road and Opey Avenue public realm implications;
- Waste and service vehicle limitations and management;
- Appropriate Stormwater Management; and
- Planning Consent conditions.

Council also raised concern that the 6.1 metre wide crossover on Opey Avenue could lead to blocking of two way movements in and out of the site and would result in interrupting on-street movements. Council noted the driveway should be made wider to facilitate easier and safer vehicle movements.

Council note that it is the authority to negotiate appropriate outcomes in regard to street trees, future public realm upgrades and canopy encroachments. The applicant responded to Council's concerns and provided amended plans which were resubmitted to Council for consideration. Council acknowledged that the amended plans are generally positive and there are some limited issues remaining. The applicant was commended for the sensitive refinements towards achieving a good design outcome.

A copy of the comments provided by Council is included in the **ATTACHMENTS.**

5. STATUTORY REFERRAL BODY COMMENTS

5.1 Commissioner of Highways [Department of Planning, Transport and Infrastructure (Traffic Operations)]

Traffic Operations is a mandatory referral in accordance with Schedule 8 of the Development Regulation 2008. The Panel must take direction from this advice. In-principle Traffic Operations does not object to the proposed development and provided eight (8) planning conditions that were recommended to be attached to any planning consent.

A copy of the comments provided by Traffic Operations is included in the **ATTACHMENTS.**

5.2 Government Architect

The Government Architect is a mandatory referral in accordance with Schedule 8 of the Development Regulation 2008. The Panel must have regard to this advice. The Government Architect responded to the referral and in-principle supports the proposed development, however it was noted that review of the following elements would be beneficial:

- Review of Opey Avenue elevation with the view to mitigate visual bulk
- Confirmation of concrete finishes, with the view to provide a high quality material with finish and colour integral to its fabric
- Review of apartment layout on the first floor to eliminate inboard bedrooms
- Review apartment layouts to ensure high level of residential amenity for all habitable rooms.
- Development of an integrated screening solution for the stand-alone air-conditioning condensers on balconies
- Review of the communal space strategy to ensure optimum user amenity.

The applicant responded to the Government Architect's comments and provided amened plans, which were resubmitted to the Government Architect for review. The Government Architect supports the proposed amendments and commends the applicant for genuinely responding to the issues raised in the referral letter.

A copy of the comments provided by the Government Architect is included in the **ATTACHMENTS.**

6. PUBLIC NOTIFICATION

The application is a Category 2 form of development. During the public notification period six (6) representations were received. It is noted, that of the six (6) representations, only five (5) were valid as the sixth was from a person not directly notified of the proposal and not an owner or occupier of adjacent land. The below table is an overview of the valid representations.

Representor ID	Issue	Applicant's Response
R1	• *Proposed Jacaranda trees are not Australian variety.* • *Over maximisation of land use without long term benefit to our local environment.* • *Reduce the number of units on western boundary and insist on planting local*	• *Applicant choose to match existing street trees which consist of Jacarandas* • *Building does not extend beyond 'interface building envelope'* • *All three land –uses are envisage in Policy Area and Zone* • *Proposal contributes in a positive manner to the desired character of*

Representor ID	Issue	Applicant's Response
	species.	*the Policy Area*
R2	• *Building is too tall for site and substantial departure from allowable height.* • *Height justified by fact development is not as bad as adjoining development already approved.* • *Applicant also seeks justification for the departure because the proposed development is 'less than 100 metres' from a zone in which it would be allowable.* • *'near enough is good enough' – makes mockery of the Development Plan and the approval process.* • *Dangerous precedent set, which renders the Development Plan meaningless.*	• *Mixed use building is lower than the building approved on adjacent site* • *Proposal reasonably manages transition to the single storey dwelling on the adjoining allotment to west.* • *The external walls of the sixth floor will be heavily recessed and clad in dark materials so it remains relatively inconspicuous from all angles.* • *No part of the building extends beyond 'interface building envelope'* • *Proposal contributes in a positive manner to the desired character of the Policy Area* • *None of the habitable room windows or private open spaces will be overlooked or overshowed to an unreasonable degree*
R3	• *Not enough infrastructure to accommodate traffic conditions and increased needs* • *Noise* • *Removal of significant trees and planting* • *Inconvenience during building* • *Change of suburb character*	• *The traffic generated by proposal is unlikely to have adverse effect on surrounding road network* • *Applicant does not oppose the conditional requirement of a Construction Management Plan, which identifies how dust, noise, stormwater, traffic and waste is to be managed.* • *Removal of significant & regulated trees is necessary. If left untouched impedes a form of development that is reasonable and expected in the Zone.*
R4	• *Carparking - the visitor parking (11 spaces) is inadequate for a mixed-use development and residential development of this scale.* • *Proposed development should not rely on on-street car parking.* • *The terrace to townhouse 'TH4d' needs to be adequately screened to a (minimum) height of 1.7m above floor level to mitigate overlooking* • *Proximity of the townhouses built form at the north-western corner of the*	• *The traffic generated by proposal is unlikely to have adverse effect on surrounding road network* • *A 1.7m high, obscure glass balustrade will be installed along northern, southern and western side of the outdoor terrace of TH4d* • *All west facing balconies are now 1.6m high and feature privacy louvers and a 300mm bench which should keep prospective residents and guest away from western edge.* • *Amended Plans depict air-conditioning units installed at ground within the confines of the townhouses private courtyards. The*

Representor ID	Issue	Applicant's Response
	subject site should be mitigated by appropriate screening, landscaping and fencing to acoustically address interface conflict with adjoining properties, particularly from alfresco areas and visitor and truck deliveries. • *The apartments looking north-west should incorporate design solutions to mitigate overlooking to the north and west* • *Fencing should be erected prior to construction to alleviate the impact of construction noise to adjoining properties.* • *Details of air-conditioning equipment are not indicated on the townhouse plans. This equipment must be screened to address acoustic and visual amenity to adjoining properties.* • *Trees indicated on western boundary needs to be planted as mature trees and of a height that prevents overlooking and conditioned to be replaced is the trees gets diseased or dies.* • *Overall the proposal is an overdevelopment of the site. This exemplified by the apartment sizes, particularly the studio apartments; stacked car parking; minimal vehicle manoeuvring areas and numerous variance with Council's Development Plan.* • *The proposal needs to be scaled to a proportion where the impacts created by the development can be contained on site and interface issues mitigated to the reasonable satisfaction of Council and owners/occupiers within the immediate locality.*	*applicant notes the units are unlikely to be visible or audible from representor's property due to the separation.* • *The proposed Crimson Spires and Chinese Elms trees will be 2.0 metres tall at the time of planning and will continue to grow to a height of around 6-10 metres.* • *Applicant notes the Development Plan is generally silent on minimal apartment size, however when reviewed against Adelaide City Development Plan all apartments exceed minimal apartment size provisions.* • *Proposal contributes in a positive manner to the desired character of the Policy Area* • *Building does not extend beyond 'interface building envelope'* • *All three land –uses are envisage in Policy Area and Zone* • *Proposal reasonably manages transition to the single storey dwelling on the adjoining allotment to west.*
R5 – support	• *Unley needs urban density*	*No Response*

A total of 3 representors wish to be heard by the State Commission Assessment Panel. A copy of each representation and the applicant's response is contained in the **ATTACHMENTS**.

Figure 3 – Representation Map

7. POLICY OVERVIEW

The subject site is located wholly within the High Street (Unley Road) Policy Area 20 of the Urban Corridor Zone as described within the Unley (City) Development Plan Consolidated 19 December 2017.

Relevant planning policies are contained in the **ATTACHMENTS** and summarised below.

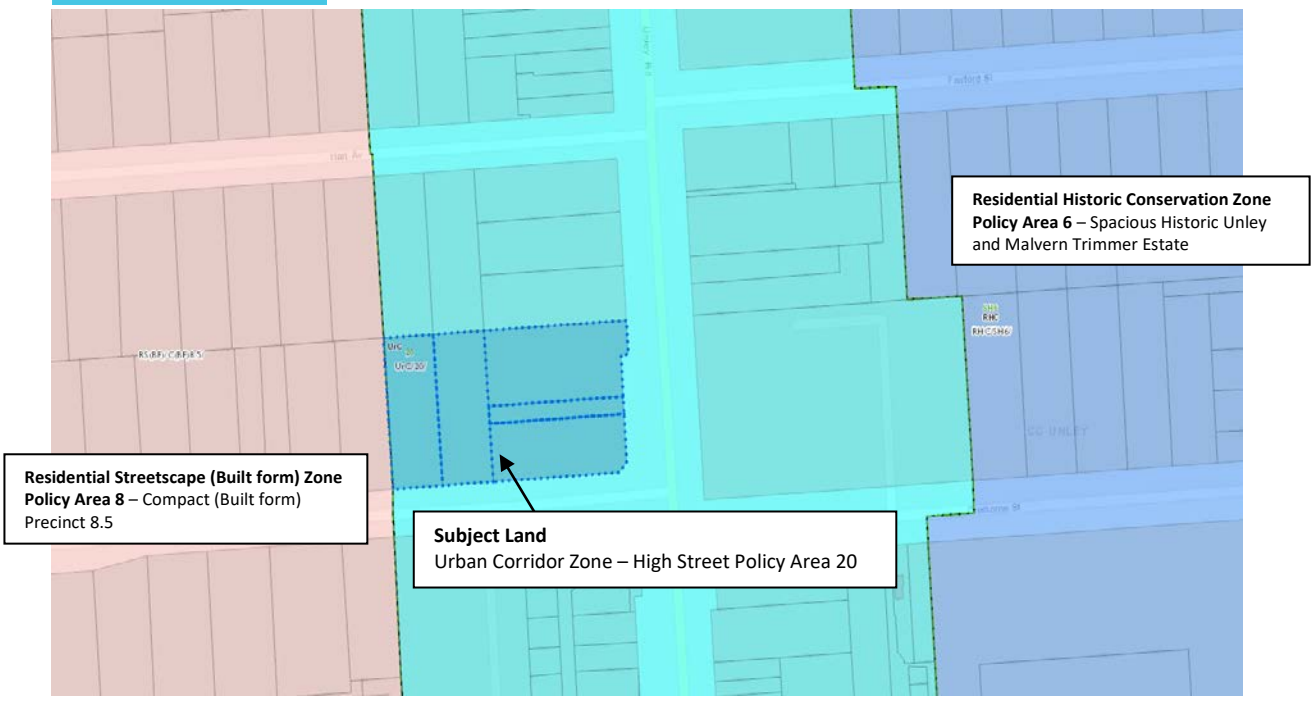


Figure 4 - Zoning Map

7.1 Policy Area

The High Street (Unley Road) Policy Area envisages moderate scaled buildings that are intended and should compromise of predominately small scale shops, mixed business services and hospitality at ground, with upper levels comprising of residential apartments.

7.2 Zone

The Urban Corridor Zone encourages a diverse range of land-uses, providing opportunity for compatible non-residential and medium and high density residential land uses orientated towards a high frequency public transport corridor; Unley Road in this instance.

Buildings of three or more storeys will be the predominant built form, with key strategic sites developed with landmark buildings that will feature prominent, attractive and activating road facades. At ground level the zone seeks a high level of pedestrian amenity for Unley Road, which provides integrated linkages to adjacent centres, public transport stops and spaces.

The Zone seeks overlooking, overshadowing and emission impacts to be moderated through good design and mitigating techniques. Impacts on adjoining zones will be minimised through appropriate land uses, building envelopes, transition of building heights, design and location of on-site activities / windows / balconies and uses of landscaping.

Car parking to the rear of development is emphasized, with access and parking areas to be design to minimise impacts on adjoining residential areas. Water sensitive urban design (WSUD) for harvest, treatment, storage and reuse of stormwater, and environmentally sustainable design (ESD) for reduction in energy consumption is encouraged within the Zone.

7.3 Council Wide

The Council Wide provisions detail a range of policy guidelines for consideration with respect to medium and high rise residential development in the City of Unley, and specifically the Urban Corridor Zone. These matters will be discussed in greater detail within the body of the assessment below.

7.4 Overlays

7.4.1 Affordable Housing

The proposal is subject to the affordable housing overlay. The applicant has been in discussion with Renewal SA, however no affordable housing agreement has been signed. The applicant has noted the studio apartments are expected to be priced at an affordable price point.

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 Unley City Development Plan, which are contained in **ATTACHMENTS**.

8.1 Quantitative Provisions

	Development Plan Guideline	Proposed	Guideline Achieved	Comment
Building Height	Zone PDC 12 Prescribes a maximum height of 5 Storeys (up to 18.5 metres)	7 storeys or 24.5m (to lift overrun)	YES ☐ NO ☒ PARTIAL ☐	
Land Use	Zone and Policy Area envisages compatible mixed use developments	Mixed use retail/commercial and residential building	YES ☒ NO ☐ PARTIAL ☐	
Car Parking	**Required** 11 carparks (Townhouses) 55 carparks (Apartments) 15 carparks (Visitor Parking) 25 Carparks (Commercial)	**Proposed** 12 carparks (Townhouses) 65 carparks (Apartments) 13 carparks (Visitor Parking) 25 Carparks (Commercial)	YES ☐ NO ☐ PARTIAL ☒	Shortfall in car parking – discussed in assessment.
Bicycle Parking	32 residential bicycle spaces 5 employee bicycle spaces 16 visitor bicycle spaces	67 secure bicycle spaces 20 bicycle space on ground floor	YES ☒ NO ☐ PARTIAL ☐	
Front Setback	Policy area does not seek a front setback	No front setback has been proposed	YES ☒ NO ☐ PARTIAL ☐	

Rear Setback	3m setback from western boundary	Townhouses have been setback 2.1m from western boundary	YES ☐ NO ☒ PARTIAL ☐	
Side Setback	0m up to 20m from primary road junction and 2m thereafter (Opey Avenue) 0m for North boundary	Development not setback from Northern boundary. Mixed use building built to boundary and townhouse have been setback from Opey Avenue	YES ☐ NO ☐ PARTIAL ☒	Discussed further in assessment
Apartments Size	Studio – 35m^2 1B/R – 50m^2 2B/R – 65m^2 3B/R – 80m^2 **(Adelaide City Council guideline)**	Studio - 43-53m^2 1B/R – 54m^2 2B/R – 67- 80m^2 3B/R – 89-167m^2	YES ☒ NO ☐ PARTIAL ☐	
Private Open Space	20m^2 for dwellings in non-residential zone	**Proposed** Studio – 6-7 m^2 1B/R – 8-23m^2 2B/R – 11-24 m^2 3B/R – 16-121m^2	YES ☐ NO ☐ PARTIAL ☒	Discussed further in the assessment

8.2 Land Use and Character

The Urban Corridor Zone envisages integrated mixed use developments in the form of medium and high rise building with ground floor uses that create active and vibrant streets with residential development above. The High Street (Unley Road) Policy Area seeks buildings to be sited and provide a continuous and consistent built edge with verandas/awnings over the public footpath. There is a strong focus in the Policy Area to create an intimate public realm with active street frontages.

The proposal involves the development of residential townhouses, a mixed use building with commercial/retail tenancies on ground and residential apartments above. The proposed land-use and composition of the development is consistent with the Urban Corridor Zone and High Street (Unley Road) Policy Area.

8.3 Building Height and Interface

The Urban Corridor Zone - High Street (Unley Road) Policy Area envisages the following building height and interface provisions:

Policy area	Minimum building height	Maximum building height
Boulevard (Greenhill Road) Policy Area 19	3 storeys (11.5 metres), or 4 storeys (15 metres) for land that is directly adjacent to or facing the Adelaide Park Lands.	7 storeys and up to 25.5 metres
High Street (Unley Road) Policy Area 20	3 storeys (11.5 metres)	5 storeys and up to 18.5 metres
Transit Living (Anzac Highway) Policy Area 24	3 storeys or no less than 11.5 metres for sites fronting Anzac Highway, and 2 storeys or no less than 8 metres for sites fronting Leader Street or Maple Avenue	6 storeys and up to 22 metres.
Business (Leader Street and Maple Avenue) Policy Area 25	2 storeys or no less than 8 metres	6 storeys and up to 22 metres.

Interface Height Provisions

PDC 13 To minimise building massing at the interface with development outside of the zone, buildings should be constructed within a building envelope provided by a 30 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).

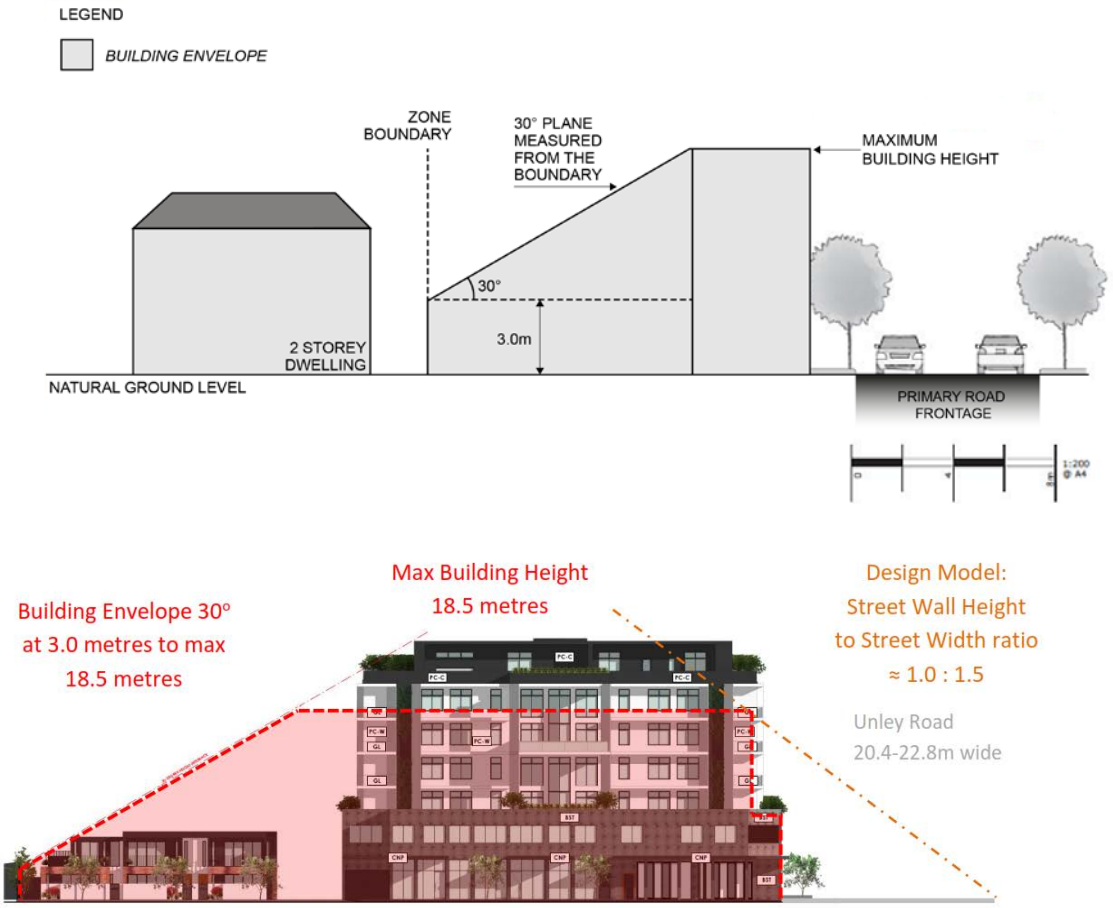


Figure 5 - Proposed height and mass of the development

The overall height of the mixed use building is 7 storeys (including ground) or approximately 24.5m to the roof line excluding roof details, which exceeds the maximum five storey / 18.5 metre height limit. The townhouses located adjacent to the residential zone are two storey in height or 6.4 metres to the roofline. There are several aspects of the proposed development that provide support for the proposed height, which are:

- The proposal does not exceed the 30 degree building envelope with the substantive mass and height of the proposed development focused towards Unley Road.

- The design and appearance of the proposed development exhibits a reduced scale and bulk through the use of a two storey podium form, which references the lower scaled built form reflected in the adjacent residential zone.

- The mixed use building has been sited to ensure maximum separation of 26.7 to 32.9 metres from the adjoining Residential Streetscape (Built Form) Zone to the west.

The Government Architect supports the height on balance as the proposal includes two storey townhouse built forms along the western boundary, which provides a positive transition to the residential properties. Council also noted the limited rear built form and mass is positive and the built form is contained within the zone boundary transition interface building envelope.

It is acknowledged a similar scale development (246 Unley Road, Unley) was granted Development Plan consent, however it is noted that the development achieved a high level of articulation, utilised quality materials which also complemented the locality and positively contributed to the activation of ground level.

The proposed development displays a design intent to reduce the scale and bulk through the use of a podium/tower element, materials, setbacks and separation distances. The townhouses along the western boundary provides an appropriate transition in built form and scale. Whist the proposed development exceeds the maximum envisaged height of the Policy Area it is not considered fatal to the application.

8.4 Setbacks

The Development Plan provides the following setback guidelines for the subject site:

- Unley Road – 0 metres
- Opey Avenue Avenue – 0 metres for a distance of 20 metres from the primary road junction and 2 metres thereafter
- Northern Boundary - 0 metres
- Western Boundary – 5 metres

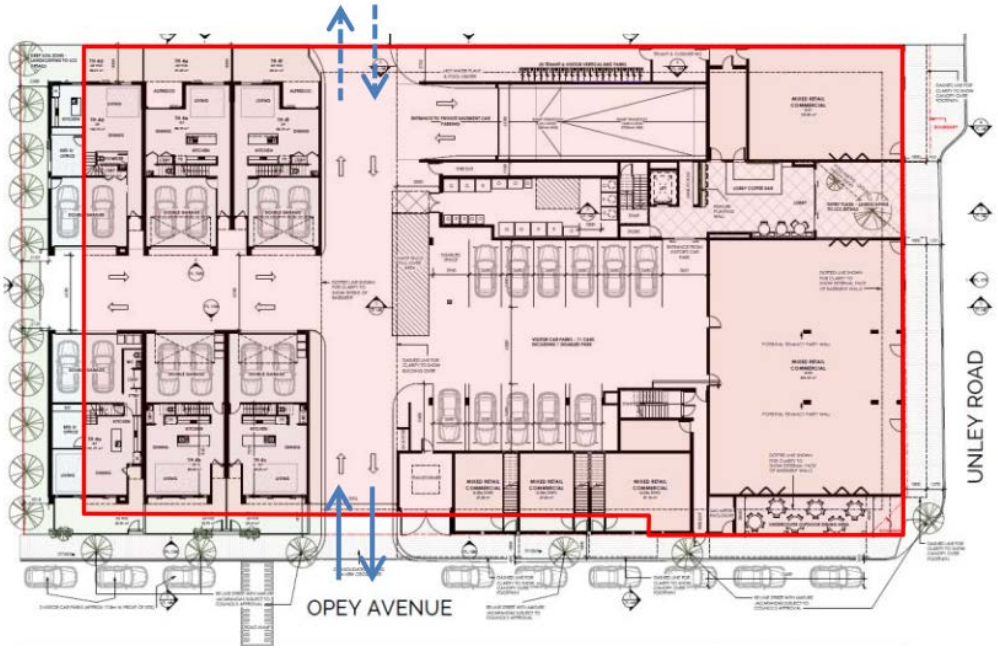


Figure 6 - Red outline illustrates setback required by the policy and zone

The mixed-used building generally accords with the envisaged setbacks, however it is noted that the secondary frontage to Opey Avenue is not setback 2 metres after a distance of 20 metres from Unley Road intersection. The intent of the setback of 2 metres is to transition to the adjoining residential zone situated to the west, which could be characterised by larger front setbacks.

Council raised concerns that the mixed-use development was not appropriately setback from Opey Avenue as outlined by the policy provision. The applicant responded noting that the 2m setback would result in a built form that is imbalanced and would be to the detriment of the podium expression.

It is acknowledged that the built face of the townhouses is setback 3 metres from Opey Avenue, which aids in breaking down the scale along Opey Avenue and provides a transition to the larger front setbacks of the residential dwellings to the west.

The townhouses located to the rear of the subject site are setback 2-2.1 metres from the western boundary, which is at odds with the envisaged 5 metres as outlined in the policy provisions. It is acknowledged that the townhouses do not extend beyond the confines of the interface building envelope and should not cast a shadow over the adjoining residential dwelling to the west from 11:00am onwards during the winter solstice.

Council are of the opinion that the townhouses provide a positive setback and landscaping to the western portion of the Opey Avenue. It was also acknowledged that the townhouse scale and built form emulates a more typical scenario and a reduced setback is reasonable while an appropriate separation and soft green screen is provided.

Whilst the proposed development does not strictly adhere to the envisaged setback along Opey Avenue it is considered that the front setbacks of townhouses should provide an appropriate transition to the adjoining residential dwellings. On balance it is considered that the proposed setback appropriate respond to the locality and adjacent built form.

8.5 Significant and Regulated Tree removal

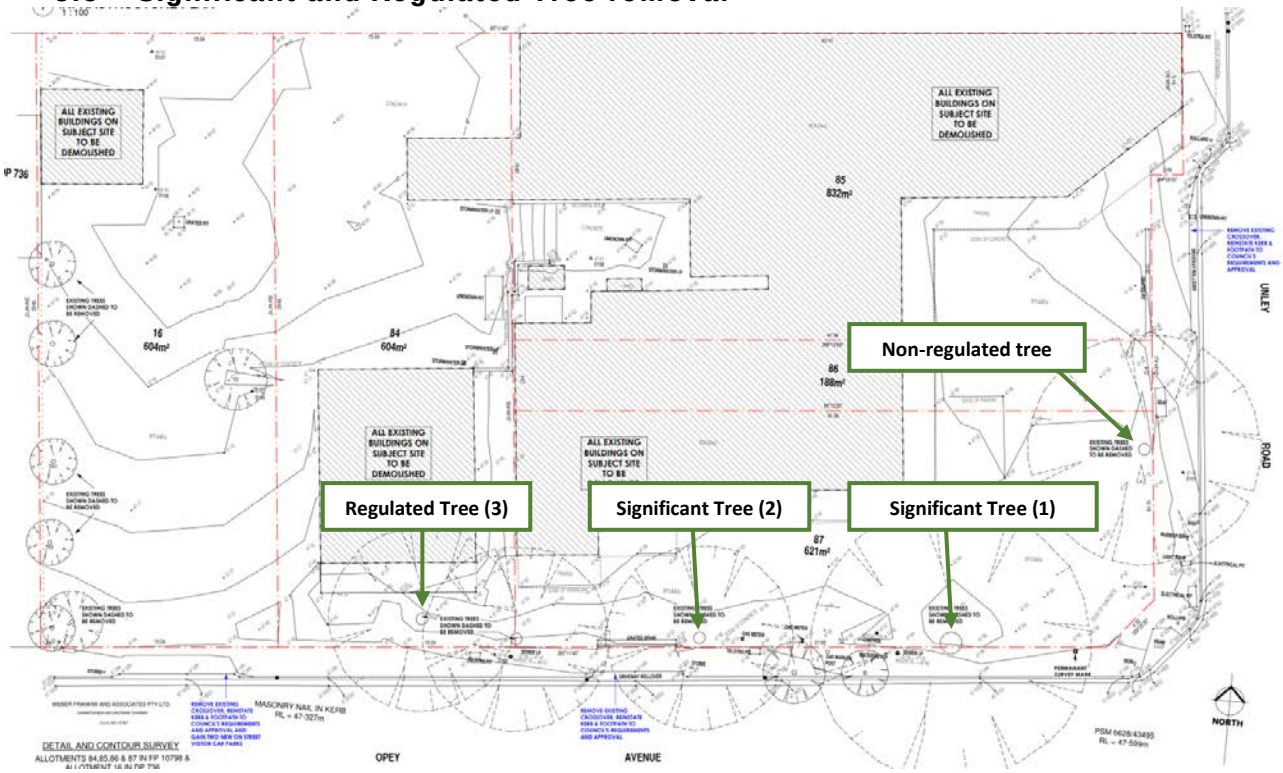


Figure 7 Tree removal

The Regulated and Significant Tree objectives in the Development Plan acknowledges that significant tree removal should be generally prevented and preservation of significant trees should occur in balance with achieving appropriate development. The polices within the Development Plan note that tree removal should not occur unless it can be demonstrated that development is reasonable and expected would not otherwise be possible.

The proposed development seeks to remove five trees located on the subject site, two of which are classified as significant and one regulated. The applicant engaged Arborcare Tree and Garden Solutions to conduct an arborist report. The report noted that the trees are approximately 40 years of age, which overtime have outgrown the garden bed and consequently damaged supporting infrastructure. All the trees on site were considered to be of good to fair health. The arborist noted that if the mixed-use development were to be built around the structural root and tree protection zones it would significantly impede the delivery of a development consistent with the general direction of the Zone.

The removal of the regulated and significant trees is unfortunate, however the proposed landscaping and deep soil planting is a positive outcome. It is also acknowledged that the zone envisages an increased built form which would be impeded if the development was to be built around the trees in question. When assessed against the relevant policy provisions the tree removing activity is not considered fatal to the application.

It is also acknowledged that the regulated and significant trees were previously approved to be removed by the Development Assessment Commission as part of DA 090/M003/15.

8.6 Design and Appearance

The Desired Character Statement of the Urban Corridor Zone provides the following guidance with respect to the built form of the building.

> *High Street Policy Area – where more moderate scaled buildings of mixed use are intended along Unley Road with predominantly small scale shops, mixed business services and hospitality uses at ground and low building levels and upper level comprising residential apartments.*

Council-wide policy broadly seeks developments of a high architectural standard that complements the existing buildings and locality. Developments are encouraged to minimise visual bulk of the building, whilst achieving human scale at ground level. Balconies should be incorporated into the architectural expression of the building.

The mixed used building is contemporary in nature which incorporates a podium and tower element into the built form. The two storey podium element extends to the north, south and east boundaries and utilises a stone tile to create a masonry character which is supported by the Government Architect. The two storey podium responds to the built scale and form within the locality as well as the desired character of the Urban Corridor Zone. The Government Architect supports the provision of the podium and its height which is consistent with the height of the podium of the adjoining approved development (246 Unley Road, Unley).

The tower element of the mixed use building (levels two to six) is setback from all sides, which defines the built form and breaks down the mass and is further strengthened by the change in materials. The tower elevations can characterised by a series of light coloured rectangular projecting frames articulated by the darker coloured recess in between, which in principle is supported by the Government Architect. The top apartment floor is setback approximately 5 metres from all elevations and is treated with a darker coloured material palette, further reducing the visual impact and bulk of the mixed-use tower. The commercial/retail tenancy along Unley Road and Opey Avenue sleeves the ground level car parking area and is generally considered a good design outcome and which is supported by the Government Architect.

The ground floor of the proposed development presents a continuous row of commercial/ retail tenancies along Unley Road and down Opey Avenue, consistent with the High Street Policy Area which seeks activation at ground through the use of small scaled shops. The applicant noted should the need occur, there is an opportunity to further divide the larger commercial/retail tenancy on the corner of Unley Road and Opey Avenue into three separate tenancies which is consistent with Objective 4 of the Urban Corridor Zone, which seeks adaptable and flexible building designs.

The provision of an outdoor dining area within the site boundary and consolidation of existing crossovers on Opey Avenue is considered a good design outcome and is supported by the Government Architect. The activation at ground is further strengthened with the use of canopies over the footpaths on Unley Road and Opey Avenue, consistent with PDC 4 (Medium and High Rise Development).

The residential apartment lobby located on Unley Road frontage and is recessed into the built form, providing some relief in building mass at ground level. Access to the lobby is via a landscaped entry plaza, which incorporates a coffee bar within the entry lobby. It is noted the residential lobby and entry plaza are expressed as a double height volume, which should provide residents and visitors a sense of arrival. The design intent and activation of this space is commendable and supported by the Government Architect.

The Government Architect generally supports the intent to address the scale of the building by providing a breakdown of form, however was not convinced by the Opey Avenue elevation that includes less physical and visual articulation. The applicant provided an amended drawings which increased the level of articulation on the southern elevation by adding additional angled columns and dark setback recesses. As a result the southern façade projects a multi layered expression, which softens and breaks down the mass of the development, which is supported by the Government Architect.

Figure 8 - Amendments to the southern façade.

The townhouses located to the rear of the development generally display a material palette that responds to the immediate locality. The Government Architect is of the opinion the townhouses appropriately respond to the established scale and character of the residential area, while maintaining a coherent connection with the larger mixed-use building.

On balance the design and appearance of the proposed development is generally considered consistent with the desired character of the Zone and Policy Area, whilst appropriately responding to the immediate locality.

8.7 Apartment Amenity

The Development Plan seeks medium to high scale residential development to provide a high standard of apartment amenity with functional internal layouts. All residential developments should have direct access to natural light and ventilation.

The proposed development consist of 12 Studios, 5 one bedroom, 17 two bedroom and 23 three bedroom apartments. The proposal is consistent with PDC 16 Medium and High Rise Development which seeks development comprising of 10 or more dwellings to provide a variety of dwelling sizes and configures.

The residential apartments are located on levels two to six and are positioned on the outer edges of the floor plate with an atrium located centrally within the building. The atrium is approximately ten metres by 6.6 metres and spans over the five floors and is open to the sky. As a result the communal circulation spaces have unrestricted views to the sky and access to natural light and ventilation. The Government Architect on balance supports the floorplate layout as it includes a variety of landscape elements, however the support is contingent on the full delivery of all the landscaping ambitions within the communal spaces.

The communal spaces located on the second floor include a plaza, several seating areas, pool, barbeque area and games room which are considered a positive addition to the residential amenities. The Government Architect noted the location of the pool adjacent to the approved multi storey development could result in overlooking issues to the pool area and will impact the solar access to the pool and deck. The applicant investigated

several alternative locations for the pool, however it was resolved to enclose the pool in the current location. The solid roof over the pool and communal space includes several skylights providing access to natural light and the western wall of the deck will be glass which can opened or closed. The Government Architect supports the enclosure of the communal pool and area to address privacy issues as well as providing year round usability.

The proposed residential apartments are generally convincing in terms of size and layout. All apartments within the mixed use development have living rooms with direct and unrestricted views to the respective private open space, consistent with PDC 15 Medium and High Rise Development.

Initial concern was also raised about the 2 two bedrooms apartments on level one that included inboard bedrooms which would not receive any natural light or ventilation. The applicant provided amended plans which removed the in-board bedrooms and revised the floorplan to convert the 2 bedroom apartments into 1 bedroom apartments with a study area. The Government Architect supports the reconfiguration of these apartments.

Figure 9 amended apartment floor plan

The Government Architect generally does not support the provision of the internal bedrooms which receive natural light and ventilation from the communal circulation spaces. Noting that these arrangements generally compromise the acoustic privacy and amenity of the apartments. The applicant responded to these comments and raising the sills from 1500mm to 1700mm above the floor level, to ensure that the window will be above eye level. In addition the proposed glazing is double glazed to the same requirements as the glazing along Unley Road, which should minimise the acoustic impacts on the apartment bedrooms.

Some concern was raised about the depth of the open plan living/dining/kitchen space for the Type F apartments. The Government Architect recommended further review of the apartment layouts to ensure a high level of residential amenity. The applicant revised the apartment floor layouts which moved the living and dining space closer to the private open space and natural light. As result the Government Architect supports the revised apartment layouts.

The six town houses located along the western boundary generally display appropriate amenity and a layout typified by developments of this natural. The Government Architect supports the internal planning of the townhouses that offers access to natural light and ventilation and usable private open spaces. The applicant responded to Council's initial concerns relating to the lack of storage and has since incorporated over bonnet/wall mounted storage in the double car garages.

The applicant's responded to the initial concerns raised by the Government Architect and Council has been positive. On balance the proposed development generally displays appropriate apartment amenities and is considered consistent with the Development Plan.

8.8 Private Open Space

Residential Development PDC 20 seeks 20 square metres of private open space to be provided to each dwelling under 300 square metres in floor area, within a non-residential zone. While Residential Development PDC 22 seeks balcony areas to be a minimum dimension of 2 metres, be screened to 1.7 metres high and have at least 70 percent of the area uncovered.

All the apartments within the mixed use development have direct access to private open space from the living room and generally satisfy the minimum dimension of 2 metres. There are several apartments from levels 3 to 5 that do not meet the minimum 20 square metres of private open space as prescribed in the Development Plan. It is noted that whilst the apartments present a shortfall in private open space, there is communal space on level 1 that is considered appropriate to offset these shortfalls. Furthermore the location of the apartments within the Urban Corridor coupled with the generous apartment sizes could further offset the shortfalls in private open space.

The townhouses within the proposed development generally display appropriate private open space provisions

On balance the balconies are generally of sufficient size and depth to accommodate outdoor seating and the shortfall in private open space is not considered fatal to the apartment amenity.

8.9 Traffic Impact, Access and Parking

8.9.1 Traffic

The Urban Corridor generally seeks development to minimise the number of access points on an arterial road where possible from local streets including rear access. Additionally the access points from the side streets should be located and designed to minimise the impacts of headlight glare and noise on nearby residents.

Vehicle access to the proposed development is via Opey Avenue or potentially from Hart Avenue, subject to the connection of the vehicle link with the adjacent development. Council raised concern that the proposed 6.1m Opey Avenue crossover may lead to drivers potential blocking opposing vehicle movements and could result in interrupting on-street vehicle movements. As a result the applicant has since widened the Opey Avenue crossover to 6.8 metres, acknowledging that such width exceeds the relevant Australian Standards.

The proposed development was referred to the Commissioner of Highways (DPTI) for comments. DPTI generally agrees with the traffic report acknowledging that the additional traffic created as a result of the proposed development is unlikely to significantly impact the operation of Unley Road or queues on Opey Avenue, particular those movements associated with the right turn out. DPTI in-principle does not raise any objections to the proposed development.

Council and DPTI raised concern about the narrowness of Opey Avenue and the potential conflict between safe vehicle movements including larger waste and service vehicles. It is acknowledged that Opey Avenue currently accommodates two-way movements and that the increase in traffic as a result of this development is considered minimal and should not significantly impact Opey Avenue. It was also noted that the proposed waste collection vehicles will be able to enter and exit the site in a forward direction and commercial vehicles currently utilise Opey Avenue to service the Unley Metro Shopping centre located directly adjacent the site.

Overall the access arrangements for the proposed development and resulting minor increase in vehicle traffic in the locality is considered consistent with the land-use and Urban Corridor Zone.

8.9.2 Car parking

Table Un/5 provides Off Street Vehicle Parking Requirements for Non-residential Development in the Urban Corridor Zone, these requirement state:

Location of development	Desired minimum number of vehicle parking spaces	Maximum number of vehicle parking spaces
All Designated Areas (unless otherwise stated)	3 spaces per 100 square metres of gross leasable floor area	6 spaces per 100 square metres of gross leasable floor area
Urban Corridor Zone	3 spaces per 100 square metres of gross leasable floor area	5 spaces per 100 square metres of gross leasable floor area

District Centre – Residential development parking rates.

Kind of Development	In Non-residential Zones and mixed use development
Studio	0.25
Small (1bedroom or floor area <75m^2)	0.75
Medium (2 bedroom or floor area <150m^2	1.0
Large (3 or more bedrooms or floor area >150m^2	1.25
Additional visitor carparking	0.25

The Development Plan is silent on a residential parking rates for medium to high density residential development in the Urban Corridor Zone. As such the District Centre Zone parking rate requirements are considered applicable to the assessment of the proposed development.

The proposed 12 parking spaces provided within double the garage of the townhouses satisfies Council's parking requirements for residential townhouses.

The commercial tenancies exhibit 827m2 of gross leasable floor area, as such the proposed development will require approximately 25 car parking spaces for the commercial/retail tenancies. The applicant notes that the required 25 carparks will be provided in the lower basement levels and the under croft carparks at grade.

A total of 55 residential car parking spaces are required for the residential apartments, with an additional 15 car parks for visitors. The 55 carparks required for the residential apartments are located wholly in the lower basement levels. The traffic consultant noted that this leaves 19 undesignated parking spaces within the 'secure' lower basement parking area, which could be used by staff of the commercial component. The applicant seeks to utilise the 13 carparks at grade for the visitors and the lower level basement carpark after hours.

Council raised concern that the combining the visitor and commercial customer car parking at ground will result in a need for further parking provision or a reduction in commercial floor space and or number of apartments to reduce demand. It is acknowledged in Transport PDC 29, the policy contemplates a lesser number of parking spaces in mixed use buildings where the operating hours of commercial activities complement residential use of the site, which would be applicable in this instance.

The consolidation of existing crossovers on Opey Avenue may also result in the reinstatement of 3 on-street carparks. Whilst it is acknowledged that the additional on-street carparks on Opey Avenue may not be exclusively used for the proposed development, it is noted that these on-street carparks are located directly adjacent the development and could also supplement the minor shortfall in visitor parks.

Whilst there is shortfall in visitor car parking the parking, on balance the parking provisions are considered adequate. It is acknowledged that there is a potential for shared car parking between the land-uses which could offset this shortfall and should not result in a detrimental impact to the immediate locality.

8.9.3 Bicycle Parking

Table Un/6 provides bicycle parking requirements for the whole Council. These requirements state:

Form of development	Employee/resident (bicycle parking spaces)	Visitor/shopper (bicycle parking spaces
Residential component of multi-storey building/residential flat building	1 for every 2 dwellings	1 for every 6 dwellings
Office	1 for every 150 square metres of gross leasable floor area	2 plus 1 per 500 square metres of gross leasable area
Shop	1 for every 300 square metres of gross leasable floor area	1 for every 600 square metres of gross leasable floor area
Tourist accommodation	1 for every 20 employees	2 for the first 40 rooms plus 1 for every additional 40 rooms
Other non-residential development	1 for every 150 square metres of gross leasable floor area	2 plus 1 per 500 square metres of gross leasable floor area

As per the relevant Development Plan requirements the following bicycle spaces will be necessary for the mixed use development:

- 30 bicycle spaces for the residential apartments
- 10 bicycle spaces for visitors of the apartments
- 5 bicycle spaces for employees – commerical uses
- 4 bicycle spaces for vistors - commerical uses

The commerical bicycle parking rates were based on the assumption that there would be an approximately 50:50 split between office and retail uses of the tenancies. The proposed development has 20 tentant and vistor bicycle parks located at ground and another 67 bicycle parks located within the basement parking area, which exceeds the 49 bicycle parks as required by the Development Plan.

It is noted that all the bicycle parks are undercover and are located where some surveillance is possible. The residential bicycles parking spaces located in the basement can be readily accessed via ramp and the security roller door should ensure the residential bicycles are secure during afterhours. The traffic consultants report noted that the all bicycle parking shall comply with the requirment of the Australian Standard for *"parking facilities"* (AS 2890.3:2015).

The proposal is considered on balance to satisfy the Development Plan requirements for bicycle parking.

8.10 Environmental Factors

8.10.1 Crime Prevention

The Development Plan generally seeks development to integrate and maintain sight lines between building and streets to improve safety and passive surveillance. Building should be orientated to overlook public and communal open spaces and streets to allow casual surveillance.

The proposed development is orientated regularly on the subject site promoting passive surveillance from ground level and upper level balconies onto the public realm (Unley Road and Opey Avenue). The commercial tenancies at ground and level 1 utilises extensive glazing to ensuring visibility in and out of the building. The entrance to private residential basement car parking levels are via a secure roller door to ensure the space is not accessed by public. In addition the townhouses to the rear of the development have views to Opey Avenue and over the communal circulation spaces at ground creating further opportunities for passive surveillance.

These measures are considered to address the principles of personal safety and should provide sufficient levels of passive surveillance to the public and private realms of the development.

8.10.2 Noise Emissions

Council Wide Development Plan policies seeks developments with noise generating sources to be located, and attenuated to avoid adverse impacts on existing and potential future land uses in the immediate locality. Additionally residential development close to high noise sources should be designed with appropriate noise attenuation measures to mitigate any negative impacts on residential amenity.

The site is also located in a 'Designated Area' and adjacent to a 'Designated Road: Type B Road' in the Noise and Air Emissions overlay in the Development Plan.

The applicant engaged Vipac to conduct an Acoustic Assessment for the proposed development. The report focused on the impact of the road noises on the development as well as the operational impact the proposed development may have on the acoustic amenity.

The acoustic report provides preliminary recommendations to residential apartments in the form of specific building materials that should attenuate noise intrusion from traffic on Unley Road in accordance with the *Minister's Specification SA 78B.* External windows and doors were not included in the assessment and it was acknowledged that it will need to be reviewed at the detailed design stage.

It was acknowledged in the acoustic report that the Air Conditioning units for the residential apartments are positioned within the niches adjacent to balconies within the development. It was noted that the noise criteria at the nearest residential noise receiver during the worst case scenario will not be exceeded provided the Sound Power level of each air conditioner is not higher than 72 dB(a).

Provided the proposed development adheres to the preliminary acoustic design recommendations contained within the acoustic report it can be assumed that the proposed development will satisfy the *Minister's Specification SA 78B* and the relevant Development Plan policies.

8.10.3 Waste Management

The Development Plan encourages medium and high rise development to provide a dedicated area for on-site collection and sorting of recyclable materials, that is appropriately screened and should not detract from the visual appearance of the ground floor.

The mixed use development utilises a central waste storage area and two ancillary storage rooms which is complementary to the back of house activities for the Lobby Coffee Bar and Café Tenancy. It is intended that staff and cleaners would collect waste/recyclable items from retail or showroom tenancies and transfer it to the central waste storage area.

The central waste storage room and chute system is large enough to accommodate 3 x 1100L general waste bins, 3 x 110L recycling waste bins and 1 x 660L organic bin. A bin wash area has been included in the waste collection room.

The collection vehicles expected for waste collection at the proposed development will consist of rear lift trucks for collection of routine waste. The consultant's report estimated that there would be approximately 9 waste collection vehicle movements per week associated with the mixed use development.

A commercial waste contractor will be responsible for the collection of waste from the mixed use development. Waste collection is proposed to occur on-site in the allocated waste truck pull-over area, directly adjacent the central waste storage area. It is noted that the waste truck will enter the site from Opey Avenue in a forward direction and leave in a forward direction. The addition of the private laneway within the adjacent development could result in vehicles entering from Hart Avenue and leaving from Opey Avenue.

The residential townhouses will utilise Council's kerbside collection services. The townhouses fronting onto Opey Avenue will store their own collection bins in the double garage/front yard. Whilst the townhouses located to the north will utilise bin waste chutes located at ground in the general storage room in the under croft car parking

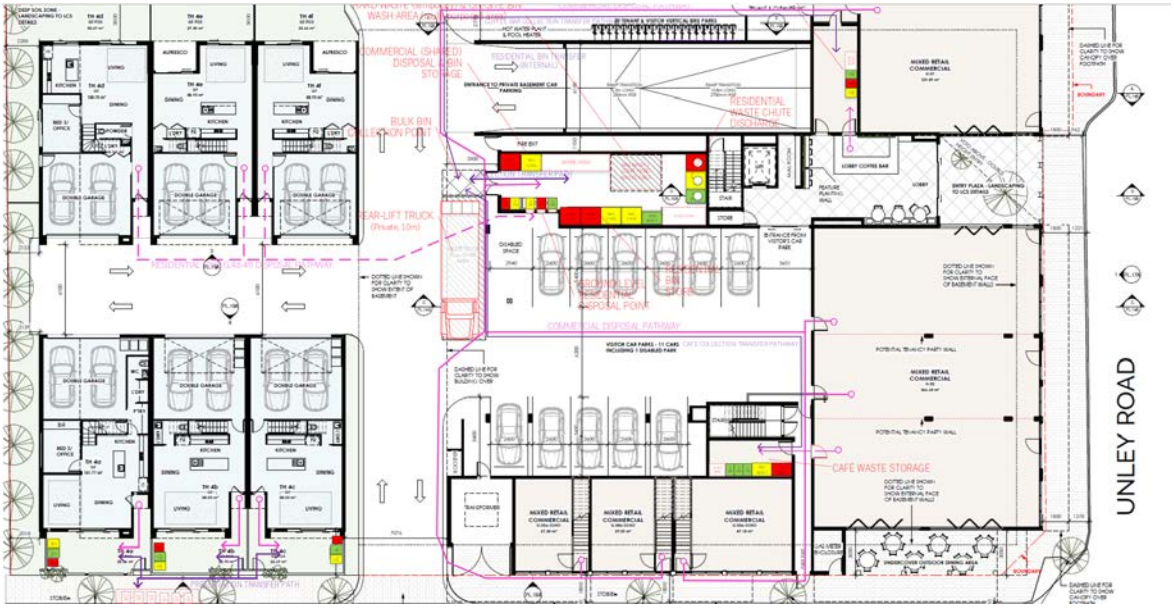


Figure 10 Proposed location of the waste bins

8.10.4 Energy Efficiency

The Desired Character Statement for the Urban Corridor states:

> *Water sensitive urban design (WSUD) for the harvest, treatment, storage and reuse of stormwater, and environmentally sustainable design (ESD) for reduction in energy consumption through passive design, construction and operation is envisaged with development. Green (vegetated) places will assist urban heat island effects and roof top gardens will provide opportunities for private and communal open space*

Lucid were engaged by the applicant to conduct a sustainability report on the proposed development. The report outline that the development is targeting a rating of more than five starts for the townhouses and an average rating of more than six stars for the mixed use building.

The proposal seeks to utilise sustainable building materials throughout the building with low volatile organise compounds and low formaldehyde emissions. The consultant noted that each apartment has been designed to provide cross flow ventilation which should improve indoor air quality, whilst reducing the demand on mechanical air conditioning. Energy efficient LED lighting will be used throughout the development and all water fixtures shall be proposed as low-flow where possible. The rainwater harvesting is proposed to serve landscape irrigation and which has been proposed to be located on the ground floor.

The proposed development demonstrates appropriate environmental sustainable design considerations and is generally consistent with the policy provisions contained within the Development Plan.

8.10.5 Wind Analysis

Development Plan PDC 22 (Medium and High Rise Development) seeks 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.*

Vipac were engaged by the applicant to conduct a Wind Analysis report on the proposed development. The report highlighted that the development would be shielded at ground by the adjacent developments, however the roof terraces will be above the shielding influence of the surrounding buildings.

The proposed development utilises 3.8 metre canopies at ground level that provides weather protection to the public realm along Unley Road and Opey Avenue footpath. The canopies also help in the deflecting downward traveling wind onto the public realm. The corner setback and setback nature of the tower is expected to be beneficial in mitigating westerly wind impacts.

The report summarised that the proposed design of the development should provide comfortable wind conditions for the footpath, entrances, and the communal terraces on level 2.

The proposed development demonstrates appropriate measures to reduce the potential for wind tunnelling at lower pedestrian levels and is considered consistent with PDC 22.

8.10.6 Stormwater

The Development Plan policies generally seeks stormwater management systems to be designed and located to improve the quality of stormwater, minimise pollutant transfer to receiving waters. Additionally developments are encouraged to incorporate on-site detention and retention facilities.

The applicant engaged PT Design to conduct a preliminary assessment of the stormwater design. The report noted that the proposed stormwater discharge from the site will be sized so as not to exceed the existing discharge flows from the existing site. The consultant noted that each townhouse will be provided with a 1.0kL slimline rainwater tank which will be located in the respective courtyards and plumbed back into the toilets. Additional site detention will be used as required and is to be confirmed during the detailed design phase.

Council noted that the existing development has a very high impervious area which is similar to the proposed development. The stormwater outflow to Unley Road and Opey Avenue need to address 1:10 year ARI events and should be kept below 4 to 5 L/s. The stormwater outlets should be distributed equi-distant along the street frontages. Council provided a condition that could be applied to the proposed development.

The proposed development demonstrates appropriate stormwater provisions and is generally considered consistent with the Development Plan.

8.10.7 Landscaping

The Urban Corridor Zone encourages developments to provide well designed landscaping to visually soften large building facades, screen and buffer parking/services and provide amenity. This should be in the form of plants with a mature height, scale and form to complement and relate to the development.

The applicant engaged LCS landscapes to provide a detailed landscaping plan for the proposed development. The mixed use building incorporates various climbing plants over the recessed section of the walls on the east, west and south elevation to try to soften the projections of the surfaces. The Government Architect does not object to the provision of the vertical greening of the building, but encourages a further resolution of the technical requirements to ensure the proposed landscape elements can be successfully sustained and maintained.

The central atrium and communal spaces (pool and bbq area) have extensive landscaping and custom furniture incorporated into these spaces which is commendable and supported. Council are of the opinion that the proposed landscaping is generally positive but limited to selected areas and of varied scale. Council suggested that more trees should be located along the rear western boundary for softening and screening and within courtyards to north and south to enhance canopy cover, microclimate and amenity.

The applicant provided revised landscaping plans, which includes climbing plants on the eastern walls of the townhouses, a staggered pedestrian path along the western boundary to allow for more trees. A plant climbing structure has been incorporated between the townhouses, which should provide shade and some screening. The plant species of the climbers on the southern and eastern elevations of the mixed-use building was changed to a Creeping fig which does not require any mechanical fixing and is ever green. A planting/shade structure over the Opey Avenue footpath has been incorporated into the mixed use building, which should further soften the southern elevation of the mixed-use building. The applicant also noted that more trees have been added to each townhouse dwelling courtyard to enhance canopy cover and screening. The Government Architect supports the added soft landscaping to improve the visual amenity of the laneway.

On balance the proposed development incorporates appropriate levels of landscaping to soften the building facades and should provide screening to the adjoining residential zone consistent with the Development Plan provisions.

8.11 Overlooking and Overshadowing

It is noted within the Desired Character Statement from the Urban Corridor Zone

Overlooking, overshadowing and emission impacts will be moderated through good design and mitigation techniques, however, it is noted noise and air amenity cannot be expected to be equivalent to a purely residential area. Impacts on adjoining zones will be minimised through appropriate land uses, building envelopes, transitions of building heights, design and location of on-site activities/windows/balconies, and use of landscaping.

Overlooking

Council initially raised concerns that the adjacent residential dwellings to the south-west, west and north-west will be overlooked and noted there was a lack of screening devices.

All northern windows on the mixed-use building are either high level or have louvers to mitigate overlooking of the approved adjacent development. Direct views of private open space to south are limited due to the established street trees (adjacent the proposal) and the separation distances.

The applicant has revised the west-facing balconies to minimise overlooking, whilst maintaining appropriate outlook and apartment amenity. The western balconies now feature 600mm privacy louvers that sits directly atop of the 1m high balustrade. An additional 300mm deep bar bench has been incorporated into the balustrade which should further minimise direct views down to the residential dwellings to the west.

The mixed use building is separated from the adjacent residential zone to the west by the townhouses and does not impede on the 30m radius as illustrated in Figure 11 and is considered consistent with PDC 39 Overlooking.

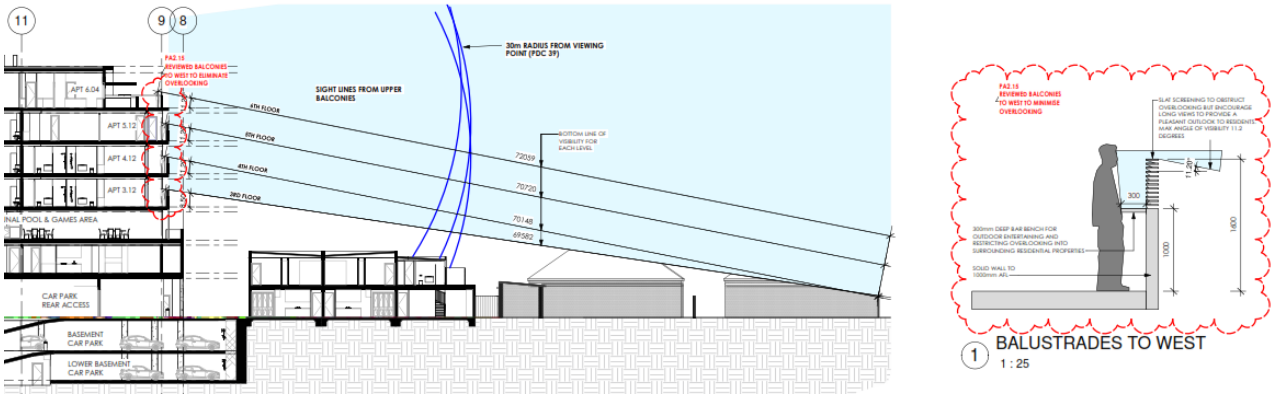


Figure 11 - Proposed long distance views and western façade screening strategy

The terraces of the townhouses (TH4a and TH4d) along the western boundary have been amended and now includes 1700mm obscure glazing, which should limit direct views and overlooking of the adjacent residential dwellings.

On balance the proposed development displays sufficient provisions to minimise the potential for unreasonable overlooking of the adjacent residential dwellings.

Overshadowing

The Urban Corridor Zone recognises that some level of overshadowing will occur with the increase in building height, which can be moderated through different design techniques.

The provided shadow diagrams of the winter solstice illustrate that the residential dwellings located to the south-west will be overshadowed between the hours of 9am to 10am. From the hours of 10am to 3pm the substantive shadow cast by the development largely falls onto the commercial development to the south and Unley Road. During the Summer Solstice majority of the development's shadow is contained within the allotment boundaries.

It is considered that the proposed development utilises appropriate design techniques to mitigate unreasonable overshadowing of the immediate locality and is generally consistent with the Development Plan.

9. CONCLUSION

The proposal is for the construction of six, two storey residential dwellings and a seven storey mixed use building which consist of commercial tenancies, residential apartments, ancillary car parking, landscaping and associated building work which is generally considered to align with both the Urban Corridor Zone and more specifically the High Street (Unley Road) Policy Area. The proposal also seeks to remove two significant and one regulated tree.

The proposed development exceeds the maximum envisaged height of 5 storeys for the High Street Policy Area. The architectural expression and articulation of the proposed development seeks to reduce the perceived visual bulk and scale of the building through various design techniques. It is acknowledged that the built form is contained wholly within the 30 degree building envelope plane. The proposed townhouses on the western boundary also provide an appropriate transition to the Residential Zone, which in-principle is supported by the Government Architect and Council.

The design and appearance of the proposal is supported by the Government Architect and the materials incorporated throughout the proposed development is considered to respond the immediate locality. The removal of the two significant and one regulated tree is unfortunate, however if the mixed-use development were to be built around the structural root and tree protection zones it would significantly restrict development of the site. The extensive soft landscaping and deep soil planting is commendable and should supplement the loss of the trees.

The commercial tenancies at ground and first level along Unley Road and Opey Avenue is consistent with the desired character of the High Street (Unley Road) Policy Area and should positively contribute to street activation. The undercover outdoor dining area is incorporated into the mix-used building which should further complement the commercial tenancies and is supported by Council and Government Architect.

The residential apartments and habitable rooms have access to natural light and ventilation and generally exhibit a high level of apartment amenity, which is further complimented by communal spaces and facilities. The applicant noted that whist an affordable housing agreement was not signed, the studio apartments are expected to priced at an affordable price point in this location.

Car parking for the mixed-use building is located underground or to the rear of the site and is screened from public realm. It is also noted that the proposal includes a laneway which is intended to link up with the adjacent development creating vehicle/pedestrian linkage between Hart and Opey Avenue as envisaged by the Development Plan.

When assessed against the relevant Development Plan policies the proposal is not considered to be significantly at variance with the policy provisions. The proposal is consistent with the desired character of the High Street Policy Area in the Urban Corridor Zone and should not result in or cause unacceptable impacts to the local amenity. Accordingly, the proposal warrants Development Plan Consent, subject to conditions.

10. RECOMMENDATION

It is recommended that the State Commission Assessment Panel:

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

2) That the State Commission Assessment Panel is satisfied that the proposal generally accords with the related Objectives and Principles of Development Control of the Unley [City] Development Plan. Having regard to all relevant policy in the development plan, the panel acknowledged that there was some non-conformance with quantitative policy, particularly height, however having regard to the qualitative design policy the project was considered to be of a high standard in relation to:
   - The quality of materials that complement the locality;
   - Articulation, recessing and setbacks to reduce bulk and scale;
   - Intended affordable housing contribution, whilst not formally connected;
   - Positive contribution and activation to the ground level and level 1;
   - The high quality of resident amenity including large sized apartments, communal open space and bike facilities; and
   - Extensive use of green landscaping.

3) RESOLVE to grant Development Plan Consent to the proposal by Citify and BFC Pty Ltd for DA 090/M005/18 at 248 Unley Road, Hyde Park subject to the following conditions of consent.

PLANNING CONDITIONS

1. That except where minor amendments may be required by other relevant Acts, or by conditions imposed by this application, the development shall be established in strict accordance with the details and following plans submitted in Development Application No 090/M005/18.

Drawing Title	Drawing No.	Rev	Date
Demolition & Infrastructure Site Plan	PL.03	PA2	26/07/2018
Lower Basement	PL.04	PA2	26/07/2018
Basement	PL.05	PA2	26/07/2018
Ground Floor	PL.06	PA2	26/07/2018
First Floor	PL.07	PA2	26/07/2018
Second Floor	PL.08	PA2	26/07/2018
Third Floor	PL.09	PA2	26/07/2018
Fourth Floor	PL.10	PA2	26/07/2018
Fifth Floor	PL.11	PA2	26/07/2018
Sixth Floor	PL.12	PA2	26/07/2018
Roof Plan	PL.13	PA2	26/07/2018
Design Sections	PL.14	PA2	26/07/2018
Design Sections	PL.15	PA2	26/07/2018
Design Sections	PL.16	PA2	26/07/2018
Elevations	PL.17	PA2	26/07/2018
Elevations	PL.18	PA2	26/07/2018
Townhouse Design	PL.19	PA2	26/07/2018
Landscape Plans			
Entry Plaza – Landscape Layout	LS.007.18.001	B	12/07/2018
Deep Soil Zones & Townhouse Courtyard	LS.007.18.002	B	12/07/2018

Landscape Plan			
Typical Townhouse & Level 1 Balcony Landscape Plan	LS.007.18.003	B	12/07/2018
Level 2 Communal Plaza Landscape Plan	LS.007.18.004	B	12/07/2018
Typical Level 3,4 & 5 Balcony Landscape Plan	LS.007.18.005	B	12/07/2018
Level 6 Landscape Plan	LS.007.18.006	B	12/07/2018
Eastern Elevation	LS.007.18.007	B	12/07/2018
Southern Elevation	LS.007.18.008	B	12/07/2018

Reports / Correspondence

- Traffic and parking report by Cirqa dated 17 April 2018
- Response – Traffic and parking by Cirqa dated 20 July 2018
- Preliminary Stormwater Assessment by PT Design dated 17 April 2018
- Further Preliminary Stormwater Assessment by PT Design dated 2 July 2018
- Waste Management Plan by Colby Industries dated 8 April 2018

2. Prior to Development Approval for superstructure works, the applicant shall submit a final detailed schedule of external materials and finishes including a physical materials sample board, to the reasonable satisfaction of the State Commission Assessment Panel in consultation with the Government Architect.

3. 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.

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

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

6. 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.

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

8. 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.

9. A proprietary stormwater treatment device (i.e. Gross Pollutant Trap) shall be installed within the carpark in accordance with Council and EPA Water Quality Guidelines. This system shall be regularly inspected, cleaned and maintained in good working order, with gross pollutants, sediments, oil and grease removed by the facility operator (at regular intervals) for the life of the development.

10. Full details be provided of on-site water detention tanks, retention tanks (and re-use) and quality management to address WSUD and limit peak stormwater outflows to less than pre-existing or equivalent of 80% impervious, in accord with City of Unley Development and Stormwater Management Design Guide. The individual outflow pipes to the street to address 1:10 year ARI events must be below 4l/s each and distributed equi-distant, and as generously separated as possible, both the Unley Road and Opey Avenue street frontage.

11. Stormwater management on-site accords with submitted details with a maximum of 8 outlets distributed equi-distant along Unley Road and Hart Avenue frontages

12. The hours for waste collection vehicles to enter and exit the site shall be restricted to Monday to Friday: 10am to 4pm; with no collection on a Saturday or Sunday

13. Non-residential land uses do not operated outside the hours of 7.00am to 10:00pm Monday to Saturday and 9.00am to 9.00pm Sunday

14. The acoustic attenuation measures recommended in the Acoustic Assessment, dated 6 February 2018 by Vipac, 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.

15. Public realm configuration, alterations and damage in relation to footpaths, verges, encroachments, outdoor dining, crash protection, street trees etc are to be resolved with , and approved by the Council at the expense of the owner/applicant

16. A payment of $716.00 shall be made into the Planning and Development Fund ($179.00 per regulated tree being removed and $268.50 per significant tree being removed) within three (3) months from the date of Development Approval being granted.

    Note: Cheques to be made payable and marked "Not Negotiable" to the SCAP and payment made at 50 Flinders Street, Adelaide or sent to GPO Box 1815 Adelaide 5001. Payment may also be made over the phone with Credit Card (Mastercard or Visa) by calling our Customer Service Officer on 7109 7018. All payments must be accompanied by reference to the Development Application number and the reason for the payment.

DPTI Traffic Operations conditions

17. A Traffic Management Plan for the construction period of the development shall be produced to the satisfaction of DPTI and Council prior to the commencement of construction. This plan shall detail the types, volumes and distribution of traffic and how they will be managed. All traffic movements shall be in accordance with this plan

18. Any excavation adjacent to roads shall be designed and undertaken in a manner that does not impact on the structural stability or safety of the roads. Any damage to road assets caused by the development shall be repaired to the satisfaction of the relevant road authority at the applicant's cost.

19. All materials and finishes shall not be permitted to result in glare or other effects that will result in the discomfort or impairment of road users.

ADVISORY NOTES

a. The development has been proposed in stages including:
   - Demolition of the existing structures and construction of mixed use building
   - Construction of the residential flat building
   - Construction of Dwelling A, Dwelling B and Dwelling C

b. The development must be substantially commenced within 12 months of the date of this Notification, unless this period has been extended by the State Commission Assessment Panel

c. The authorisation will lapse if not commenced within 12 months of the date of this Notification.

d. The applicant is also advised that any act or work authorised or required by this Notification must be completed within 3 years of the date of the Notification unless this period is extended by the State Commission Assessment Panel.

e. The applicant has a right of appeal against the conditions which have been imposed on this Development Plan Consent or Development Approval.

f. 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.

g. The applicant is asked to contact the Court if wishing to appeal. The Court is located in the Sir Samuel Way Building, Victoria Square, Adelaide, (telephone number 8204 0289).

h. A Construction Environmental Management Plan (CEMP) shall be prepared in collaboration with the City of Unley (Council) and be implemented in accordance with current industry standards – including the Local Nuisance and Litter Control Act 2016, the EPA publications "Handbook for Pollution Avoidance on Commercial and Residential Building Sites – Second Edition" and were applicable, "Environmental Management of On-site Remediation" – to minimise environmental harm and disturbance during constriction.

   The management plan should incorporate, without being limited to the following matters:
   - Timing, staging and methodology of the construction process and working hours;
   - Traffic management strategies;
   - Control and management of construction noise, vibration, dust and mud;
   - Management of infrastructure services during construction and re-establishment of local amenity and landscaping;
   - Stormwater and groundwater management during construction;
   - Site security, fencing and safety and management of impact on local amenity for residents, traffic and pedestrians;
   - Disposal of construction waste, any hazardous waste and refuse in an appropriate manner according to the nature of the waste;
   - Protection and cleaning of roads and pathways;
   - Overall site clean-up;
   - Work in the public realm;
   - Hoardings and
   - Tradesperson vehicle parking:

DPTI Traffic Operations Advisory Notes

i. The subject site is affected by a requirement shown on the Metropolitan Adelaide Road Widening Plan (MARWP) for a 4.5 metres x 4.5metres cut-off at the Unley Road / Opey Avenue corner of this site for possible future road purposes. The consent of the Commissioner of Highways under the Metropolitan Adelaide Road Widening Plan Act is required to all new building works located on or within 6.0 metres of the possible requirement.

Council Advisory Note

j. Pursuant to the policy of the City of Unley On-Street Parking Exemption permits are not issued for occupant of new development (post 2013).

k. An Encroachment Approval will be required for structures beyond the site boundaries and over the public footpath.

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

248 UNLEY ROAD, HYDE PARK

SHEET LIST		
SHEET #	SHEET NAME	CURRENT REVISION
PL.01	Existing Site Context	PA2
PL.02	Proposed Site	PA2
PL.03	Demolition & Infrastructure Site Plan	PA2
PL.04	Lower Basement	PA2
PL.05	Basement	PA2
PL.06	Ground Floor	PA2
PL.07	First Floor	PA2
PL.08	Second Floor	PA2
PL.09	Third Floor	PA2
PL.10	Fourth Floor	PA2
PL.11	Fifth Floor	PA2
PL.12	Sixth Floor	PA2
PL.13	Roof Plan	PA2
PL.14	Design Sections	PA2
PL.15	Design Sections	PA2
PL.16	Design Sections	PA2
PL.17	Elevations	PA2
PL.18	Elevations	PA2
PL.19	Townhouse Design	PA2

FLOOR AREAS

Name	Comments	Area
ACCESS DRIVEWAY	DRIVEWAY	249.17 m²
ACCESS DRIVEWAY: 1		249.17 m²
APT SITE	COMMERCIAL NORTH	151.33 m²
APT SITE	COMMERCIAL CORNER	343.10 m²
APT SITE	COMMERCIAL OPEY AVE	171.32 m²
APT SITE	FIRE EXIT	27.71 m²
APT SITE	STAIR AND LIFT CORE	25.79 m²
APT SITE	FIRE EXIT	22.12 m²
APT SITE	RAMP TO BASEMENT	157.80 m²
APT SITE	SERVICE LANE	75.30 m²
APT SITE	COMMERCIAL CAR PARK	404.02 m²
APT SITE	LOBBY	118.93 m²
APT SITE	WASTE AREA	81.37 m²
APT SITE	OUTDOOR DINING	37.10 m²
APT SITE: 12		1615.89 m²
BASEMENT	FLOOR AREA	1606.21 m²
BASEMENT: 1		1606.21 m²
FIFTH FLOOR	FLOOR AREA	967.65 m²
FIFTH FLOOR: 1		967.65 m²
FIRST FLOOR	FLOOR AREA	1511.81 m²
FIRST FLOOR: 1		1511.81 m²
FOURTH FLOOR	FLOOR AREA	1233.32 m²
FOURTH FLOOR: 1		1233.32 m²
LANDSCAPING	REAR LANDSCAPING	96.47 m²
LANDSCAPING	SIDE LANDSCAPING	54.73 m²
LANDSCAPING	FRONT LANDSCAPING	63.34 m²
LANDSCAPING: 3		214.55 m²
SECOND FLOOR	FLOOR AREA	1480.76 m²
SECOND FLOOR: 1		1480.76 m²
SIXTH FLOOR	FLOOR AREA	1159.14 m²
SIXTH FLOOR: 1		1159.14 m²
THIRD FLOOR	FLOOR AREA	1209.62 m²
THIRD FLOOR: 1		1209.62 m²
TOWNHOUSE SITE	FRONT DWELLINGS	280.37 m²
TOWNHOUSE SITE	REAR DWELLINGS	305.02 m²
TOWNHOUSE SITE	DRIVEWAY	138.32 m²
TOWNHOUSE SITE	REAR THS - 1ST FLOOR	267.43 m²
TOWNHOUSE SITE	FRONT THS - 1ST FLOOR	254.50 m²
TOWNHOUSE SITE: 5		1245.64 m²
		12493.76 m²

SOU AREAS

Level	Name	Comments	Area
1ST FLOOR PLAN	APT 1.01 (TYPE H)	BALCONY	7.13 m²
1ST FLOOR PLAN	APT 1.01 (TYPE H)	STUDIO	42.39 m²
			49.51 m²
1ST FLOOR PLAN	APT 1.02 (TYPE H)	BALCONY	7.26 m²
1ST FLOOR PLAN	APT 1.02 (TYPE H)	STUDIO	43.18 m²
			50.44 m²
1ST FLOOR PLAN	APT 1.03 (TYPE H)	BALCONY	7.49 m²
1ST FLOOR PLAN	APT 1.03 (TYPE H)	STUDIO	44.57 m²
			52.06 m²
1ST FLOOR PLAN	APT 1.04 (TYPE H)	BALCONY	8.98 m²
1ST FLOOR PLAN	APT 1.04 (TYPE H)	STUDIO	53.04 m²
			62.02 m²
1ST FLOOR PLAN	APT 1.05 (TYPE H)	BALCONY	8.70 m²
1ST FLOOR PLAN	APT 1.05 (TYPE H)	STUDIO	51.76 m²
			60.46 m²
1ST FLOOR PLAN	APT 1.06 (TYPE E1)	1 BED 1 BATH	67.95 m²
1ST FLOOR PLAN	APT 1.06 (TYPE E1)	BALCONY	23.69 m²
			91.64 m²
1ST FLOOR PLAN	APT 1.07 (TYPE H)	BALCONY	8.79 m²
1ST FLOOR PLAN	APT 1.07 (TYPE H)	STUDIO	52.27 m²
			61.06 m²
1ST FLOOR PLAN	APT 1.08 (TYPE I)	3 BED 2 BATH	89.78 m²
1ST FLOOR PLAN	APT 1.08 (TYPE I)	BALCONY	16.83 m²
			106.60 m²
1ST FLOOR PLAN	APT 1.09 (TYPE E1)	1 BED 1 BATH	67.59 m²
1ST FLOOR PLAN	APT 1.09 (TYPE E1)	BALCONY	21.90 m²
			89.49 m²
1ST FLOOR PLAN	APT 1.10 (TYPE H)	BALCONY	7.44 m²
1ST FLOOR PLAN	APT 1.10 (TYPE H)	STUDIO	51.60 m²
			59.04 m²
1ST FLOOR PLAN	APT 1.11 (TYPE H)	BALCONY	7.40 m²
1ST FLOOR PLAN	APT 1.11 (TYPE H)	STUDIO	51.31 m²
			58.71 m²
1ST FLOOR PLAN	APT 1.12 (TYPE H)	BALCONY	6.28 m²
1ST FLOOR PLAN	APT 1.12 (TYPE H)	STUDIO	43.56 m²
			49.85 m²
1ST FLOOR PLAN	APT 1.13 (TYPE H)	BALCONY	6.28 m²
1ST FLOOR PLAN	APT 1.13 (TYPE H)	STUDIO	43.56 m²
			49.84 m²
1ST FLOOR PLAN	APT 1.14 (TYPE H)	BALCONY	6.21 m²
1ST FLOOR PLAN	APT 1.14 (TYPE H)	STUDIO	43.06 m²
			49.27 m²
1ST FLOOR PLAN	APT 1.15 (TYPE H)	BALCONY	6.21 m²
1ST FLOOR PLAN	APT 1.15 (TYPE H)	STUDIO	43.05 m²
			49.26 m²
2ND FLOOR PLAN	APT 2.01 (TYPE B)	2 BED 2 BATH	80.40 m²
2ND FLOOR PLAN	APT 2.01 (TYPE B)	BALCONY	23.58 m²
			103.98 m²

SOU AREAS

Level	Name	Comments	Area
2ND FLOOR PLAN	APT 2.02 (TYPE C)	2 BED 2 BATH	73.20 m²
2ND FLOOR PLAN	APT 2.02 (TYPE C)	BALCONY	24.92 m²
			98.12 m²
2ND FLOOR PLAN	APT 2.03 (TYPE D)	3 BED 2 BATH	90.06 m²
2ND FLOOR PLAN	APT 2.03 (TYPE D)	BALCONY	29.29 m²
			119.35 m²
2ND FLOOR PLAN	APT 2.04 (TYPE E)	2 BED, 1 BATH	67.02 m²
2ND FLOOR PLAN	APT 2.04 (TYPE E)	BALCONY	23.69 m²
			90.71 m²
2ND FLOOR PLAN	APT 2.05 (TYPE F)	3 BED, 2 BATH	93.94 m²
2ND FLOOR PLAN	APT 2.05 (TYPE F)	BALCONY	28.12 m²
			122.06 m²
2ND FLOOR PLAN	APT 2.06 (TYPE G)	3 BED 3 BATH LOWER	60.77 m²
3RD FLOOR PLAN	APT 2.06 (TYPE G)	3 BED 3 BATH UPPER	60.77 m²
2ND FLOOR PLAN	APT 2.06 (TYPE G)	BALCONY	29.30 m²
			150.84 m²
2ND FLOOR PLAN	APT 2.07 (TYPE F)	3 BED, 2 BATH	93.99 m²
2ND FLOOR PLAN	APT 2.07 (TYPE F)	BALCONY	25.66 m²
			119.65 m²
2ND FLOOR PLAN	APT 2.08 (TYPE E)	2 BED, 1 BATH	67.02 m²
2ND FLOOR PLAN	APT 2.08 (TYPE E)	BALCONY	21.90 m²
			88.92 m²
2ND FLOOR PLAN	APT 2.09 (TYPE D)	3 BED, 2 BATH	90.06 m²
2ND FLOOR PLAN	APT 2.09 (TYPE D)	BALCONY	26.94 m²
			117.00 m²
2ND FLOOR PLAN	APT 2.10 (TYPE C)	2 BED 2 BATH	72.98 m²
2ND FLOOR PLAN	APT 2.10 (TYPE C)	BALCONY	22.93 m²
			95.91 m²
3RD FLOOR PLAN	APT 3.01 (TYPE A)	1 BED 1 BATH	54.59 m²
3RD FLOOR PLAN	APT 3.01 (TYPE A)	BALCONY	8.04 m²
			62.63 m²
3RD FLOOR PLAN	APT 3.02 (TYPE B)	2 BED 2 BATH	80.40 m²
3RD FLOOR PLAN	APT 3.02 (TYPE B)	BALCONY	12.70 m²
			93.10 m²
3RD FLOOR PLAN	APT 3.03 (TYPE C)	2 BED 2 BATH	73.25 m²
3RD FLOOR PLAN	APT 3.03 (TYPE C)	BALCONY	12.19 m²
			85.44 m²
3RD FLOOR PLAN	APT 3.04 (TYPE D)	3 BED 2 BATH	89.69 m²
3RD FLOOR PLAN	APT 3.04 (TYPE D)	BALCONY	15.00 m²
			104.69 m²
3RD FLOOR PLAN	APT 3.05 (TYPE E)	2 BED 1 BATH	67.02 m²
3RD FLOOR PLAN	APT 3.05 (TYPE E)	BALCONY	13.92 m²
			80.94 m²
3RD FLOOR PLAN	APT 3.06 (TYPE F)	3 BED 2 BATH	93.99 m²
3RD FLOOR PLAN	APT 3.06 (TYPE F)	BALCONY	16.61 m²
			110.59 m²

SOU AREAS

Level	Name	Comments	Area
3RD FLOOR PLAN	APT 3.07 (TYPE F)	3 BED 2 BATH	93.99 m²
3RD FLOOR PLAN	APT 3.07 (TYPE F)	BALCONY	17.15 m²
			111.13 m²
3RD FLOOR PLAN	APT 3.08 (TYPE E)	2 BED 1 BATH	67.02 m²
3RD FLOOR PLAN	APT 3.08 (TYPE E)	BALCONY	13.92 m²
			80.94 m²
3RD FLOOR PLAN	APT 3.09 (TYPE D)	3 BED 2 BATH	89.67 m²
3RD FLOOR PLAN	APT 3.09 (TYPE D)	BALCONY	15.00 m²
			104.67 m²
3RD FLOOR PLAN	APT 3.10 (TYPE C)	2 BED 2 BATH	73.20 m²
3RD FLOOR PLAN	APT 3.10 (TYPE C)	BALCONY	11.92 m²
			85.12 m²
3RD FLOOR PLAN	APT 3.11 (TYPE B)	2 BED 2 BATH	80.40 m²
3RD FLOOR PLAN	APT 3.11 (TYPE B)	BALCONY	12.42 m²
			92.82 m²
4TH FLOOR PLAN	APT 4.01 (TYPE A)	1BED 1BATH	54.59 m²
4TH FLOOR PLAN	APT 4.01 (TYPE A)	BALCONY	8.04 m²
			62.63 m²
4TH FLOOR PLAN	APT 4.02 (TYPE B)	2 BED 2 BATH	80.40 m²
4TH FLOOR PLAN	APT 4.02 (TYPE B)	BALCONY	12.70 m²
			93.10 m²
4TH FLOOR PLAN	APT 4.03 (TYPE C)	2 BED 2 BATH	73.25 m²
4TH FLOOR PLAN	APT 4.03 (TYPE C)	BALCONY	12.19 m²
			85.44 m²
4TH FLOOR PLAN	APT 4.04 (TYPE D)	3 BED 2 BATH	89.69 m²
4TH FLOOR PLAN	APT 4.04 (TYPE D)	BALCONY	15.00 m²
			104.69 m²
4TH FLOOR PLAN	APT 4.05 (TYPE E)	2 BED 1 BATH	67.02 m²
4TH FLOOR PLAN	APT 4.05 (TYPE E)	BALCONY	13.92 m²
			80.94 m²
4TH FLOOR PLAN	APT 4.06 (TYPE F)	3 BED 2 BATH	93.99 m²
4TH FLOOR PLAN	APT 4.06 (TYPE F)	BALCONY	16.61 m²
			110.59 m²
4TH FLOOR PLAN	APT 4.07 (TYPE G)	3 BED 3 BATH LOWER	60.77 m²
5TH FLOOR PLAN	APT 4.07 (TYPE G)	3 BED 3 BATH UPPER	51.18 m²
4TH FLOOR PLAN	APT 4.07 (TYPE G)	BALCONY	17.98 m²
			129.92 m²
4TH FLOOR PLAN	APT 4.08 (TYPE F)	3 BED 2 BATH	93.99 m²
4TH FLOOR PLAN	APT 4.08 (TYPE F)	BALCONY	17.15 m²
			111.13 m²
4TH FLOOR PLAN	APT 4.09 (TYPE E)	2 BED 1 BATH	67.02 m²
4TH FLOOR PLAN	APT 4.09 (TYPE E)	BALCONY	13.92 m²
			80.94 m²
4TH FLOOR PLAN	APT 4.10 (TYPE D)	3 BED 2 BATH	89.67 m²
4TH FLOOR PLAN	APT 4.10 (TYPE D)	BALCONY	15.00 m²
			104.67 m²

SOU AREAS

Level	Name	Comments	Area
4TH FLOOR PLAN	APT 4.11 (TYPE C)	2 BED 2 BATH	73.20 m²
4TH FLOOR PLAN	APT 4.11 (TYPE C)	BALCONY	11.92 m²
			85.12 m²
4TH FLOOR PLAN	APT 4.12 (TYPE B)	2 BED 2 BATH	80.40 m²
4TH FLOOR PLAN	APT 4.12 (TYPE B)	BALCONY	12.42 m²
			92.82 m²
5TH FLOOR PLAN	APT 5.01 (TYPE A)	1 BED 1 BATH	54.59 m²
5TH FLOOR PLAN	APT 5.01 (TYPE A)	BALCONY	8.04 m²
			62.63 m²
5TH FLOOR PLAN	APT 5.02 (SUB-PENTHOUSE NORTH EAST)	3 BED 2 BATH	153.65 m²
5TH FLOOR PLAN	APT 5.02 (SUB-PENTHOUSE NORTH EAST)	BALCONY	12.19 m²
5TH FLOOR PLAN	APT 5.02 (SUB-PENTHOUSE NORTH EAST)	TERRACE	12.70 m²
			178.54 m²
5TH FLOOR PLAN	APT 5.04 (TYPE D)	3 BED 2 BATH	89.69 m²
5TH FLOOR PLAN	APT 5.04 (TYPE D)	BALCONY	15.00 m²
			104.69 m²
5TH FLOOR PLAN	APT 5.05 (SUB-PENTHOUSE SOUTH EAST)	3 BED 2 BATH	161.01 m²
5TH FLOOR PLAN	APT 5.05 (SUB-PENTHOUSE SOUTH EAST)	BALCONY	16.61 m²
5TH FLOOR PLAN	APT 5.05 (SUB-PENTHOUSE SOUTH EAST)	TERRACE	13.92 m²
			191.53 m²
5TH FLOOR PLAN	APT 5.07 (SUB-PENTHOUSE SOUTH WEST)	3 BED 2 BATH	160.94 m²
5TH FLOOR PLAN	APT 5.07 (SUB-PENTHOUSE SOUTH WEST)	BALCONY	17.13 m²
5TH FLOOR PLAN	APT 5.07 (SUB-PENTHOUSE SOUTH WEST)	TERRACE	13.92 m²
			191.99 m²
5TH FLOOR PLAN	APT 5.09 (TYPE D)	3 BED 2 BATH	89.67 m²
5TH FLOOR PLAN	APT 5.09 (TYPE D)	BALCONY	15.00 m²
			104.67 m²
5TH FLOOR PLAN	APT 5.10 (SUB-PENTHOUSE NORTH WEST)	3 BED 2 BATH	153.60 m²
5TH FLOOR PLAN	APT 5.10 (SUB-PENTHOUSE NORTH WEST)	BALCONY	11.92 m²
5TH FLOOR PLAN	APT 5.10 (SUB-PENTHOUSE NORTH WEST)	TERRACE	12.42 m²
			177.94 m²
6TH FLOOR PLAN	APT 6.01 (PENTHOUSE NORTH)	3 BED 2 BATH	153.62 m²
6TH FLOOR PLAN	APT 6.01 (PENTHOUSE NORTH)	BALCONY	74.96 m²
			228.58 m²
6TH FLOOR PLAN	APT 6.02 (PENTHOUSE EAST)	3 BED 2 BATH	155.21 m²
6TH FLOOR PLAN	APT 6.02 (PENTHOUSE EAST)	BALCONY	82.97 m²
			238.18 m²
6TH FLOOR PLAN	APT 6.03 (PENTHOUSE SOUTH)	3 BED 2 BATH	160.98 m²
6TH FLOOR PLAN	APT 6.03 (PENTHOUSE SOUTH)	BALCONY	121.15 m²
			282.14 m²

SOU AREAS

Level	Name	Comments	Area
6TH FLOOR PLAN	APT 6.04 (PENTHOUSE WEST)	3 BED 2 BATH	167.28 m²
6TH FLOOR PLAN	APT 6.04 (PENTHOUSE WEST)	BALCONY	119.14 m²
			286.42 m²
2ND FLOOR PLAN	COMMON AREA	GAMES ROOM	27.78 m²
2ND FLOOR PLAN	COMMON AREA	POOL & SPA	55.88 m²
2ND FLOOR PLAN	COMMON AREA	POOL LOUNGE & BBQ	125.64 m²
2ND FLOOR PLAN	COMMON AREA	TOILETS & SHRS	15.50 m²
			224.81 m²
GROUND FLOOR	MIXED RETAIL COMMERCIAL	G.01	141.01 m²
GROUND FLOOR	MIXED RETAIL COMMERCIAL	G.02	354.66 m²
GROUND FLOOR	MIXED RETAIL COMMERCIAL	G.03a SOHO	111.43 m²
1ST FLOOR PLAN	MIXED RETAIL COMMERCIAL	G.03b SOHO	68.43 m²
1ST FLOOR PLAN	MIXED RETAIL COMMERCIAL	G.04b SOHO	152.41 m²
Not Placed	MIXED RETAIL COMMERCIAL	G.05b SOHO	Not Placed
			827.95 m²
1ST FLOOR PLAN	TH 4a	FF	55.18 m²
1ST FLOOR PLAN	TH 4a	FF BALCONY	9.26 m²
1ST FLOOR PLAN	TH 4a	FF TERRACE	10.31 m²
GROUND FLOOR	TH 4a	GF	101.77 m²
GROUND FLOOR	TH 4a	GF POS	25.36 m²
			201.88 m²
1ST FLOOR PLAN	TH 4b	FF	76.21 m²
1ST FLOOR PLAN	TH 4b	FF BALCONY	13.92 m²
GROUND FLOOR	TH 4b	GF	88.03 m²
GROUND FLOOR	TH 4b	GF POS	22.70 m²
			200.86 m²
1ST FLOOR PLAN	TH 4c	FF	76.21 m²
1ST FLOOR PLAN	TH 4c	FF BALCONY	13.95 m²
GROUND FLOOR	TH 4c	GF	88.03 m²
GROUND FLOOR	TH 4c	GF POS	22.69 m²
			200.89 m²
1ST FLOOR PLAN	TH 4d	FF	54.91 m²
1ST FLOOR PLAN	TH 4d	FF BALCONY	9.15 m²
1ST FLOOR PLAN	TH 4d	FF TERRACE	10.01 m²
GROUND FLOOR	TH 4d	GF	100.75 m²
GROUND FLOOR	TH 4d	GF POS	58.69 m²
			233.51 m²
1ST FLOOR PLAN	TH 4e	FF	76.84 m²
1ST FLOOR PLAN	TH 4e	FF BALCONY	15.02 m²
GROUND FLOOR	TH 4e	GF	88.93 m²
GROUND FLOOR	TH 4e	GF POS	27.45 m²
			208.24 m²
1ST FLOOR PLAN	TH 4f	FF	76.94 m²
1ST FLOOR PLAN	TH 4f	FF BALCONY	15.05 m²
GROUND FLOOR	TH 4f	GF	88.93 m²
GROUND FLOOR	TH 4f	GF POS	25.66 m²
			206.58 m²

REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Cover Page

PL.00

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

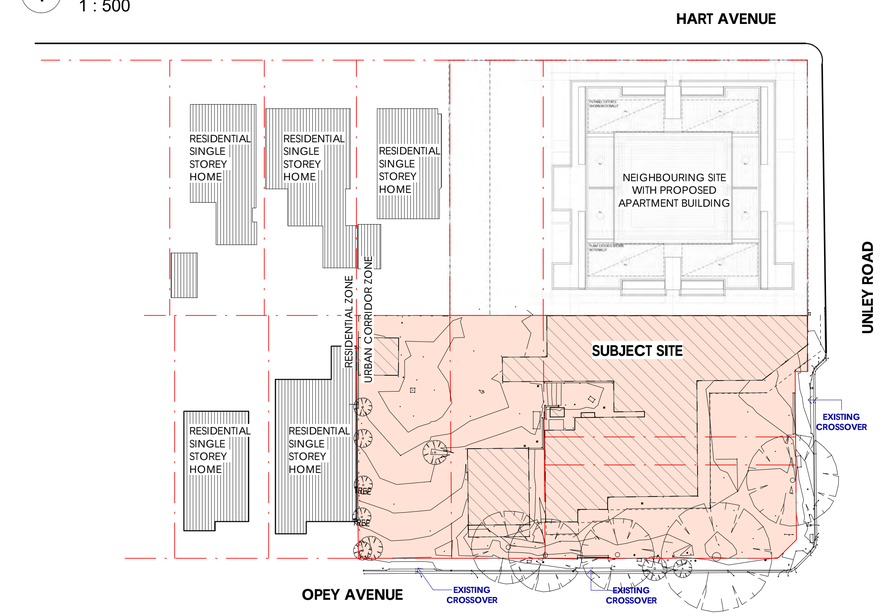
A1 1:100; A3 1:200

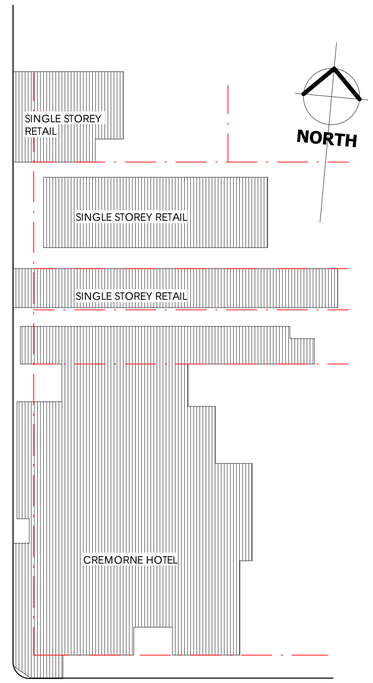
NOT FOR CONSTRUCTION

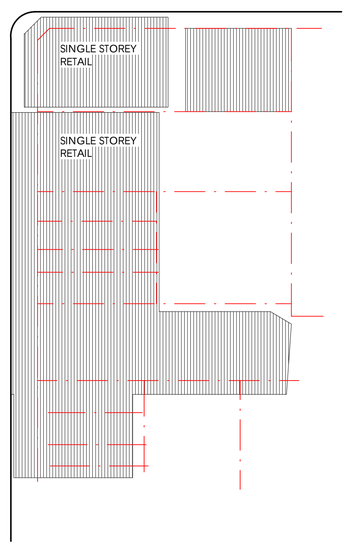
GEMMA | LEA DESIGN STUDIO

1 EXISTING SITE

1 : 500







REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
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SHEET
Existing Site Context

PL.01

AUTHOR
GB

ISSUE
Response to referrals

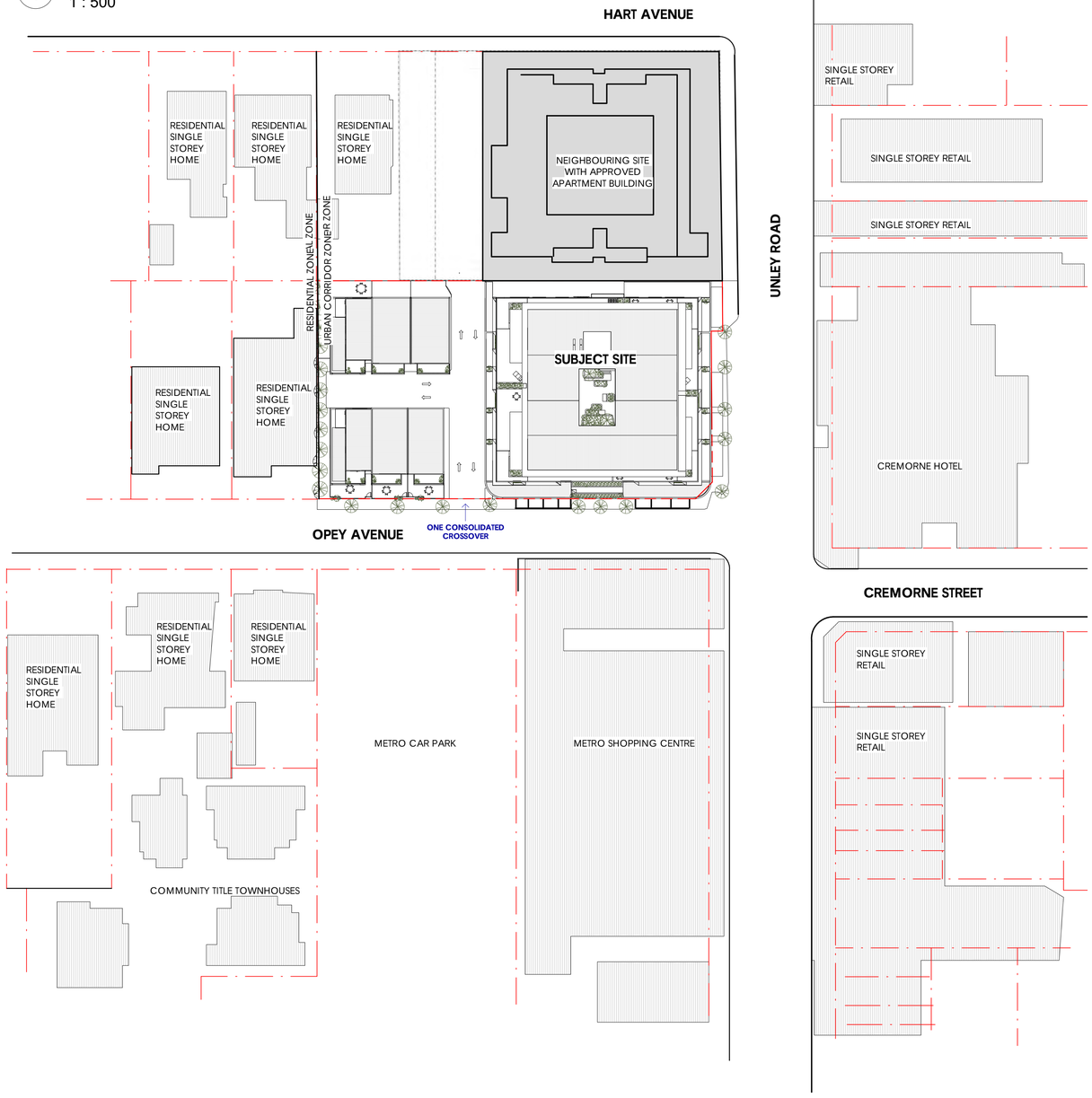
26/07/2018

A1 1:100; A3 1:200

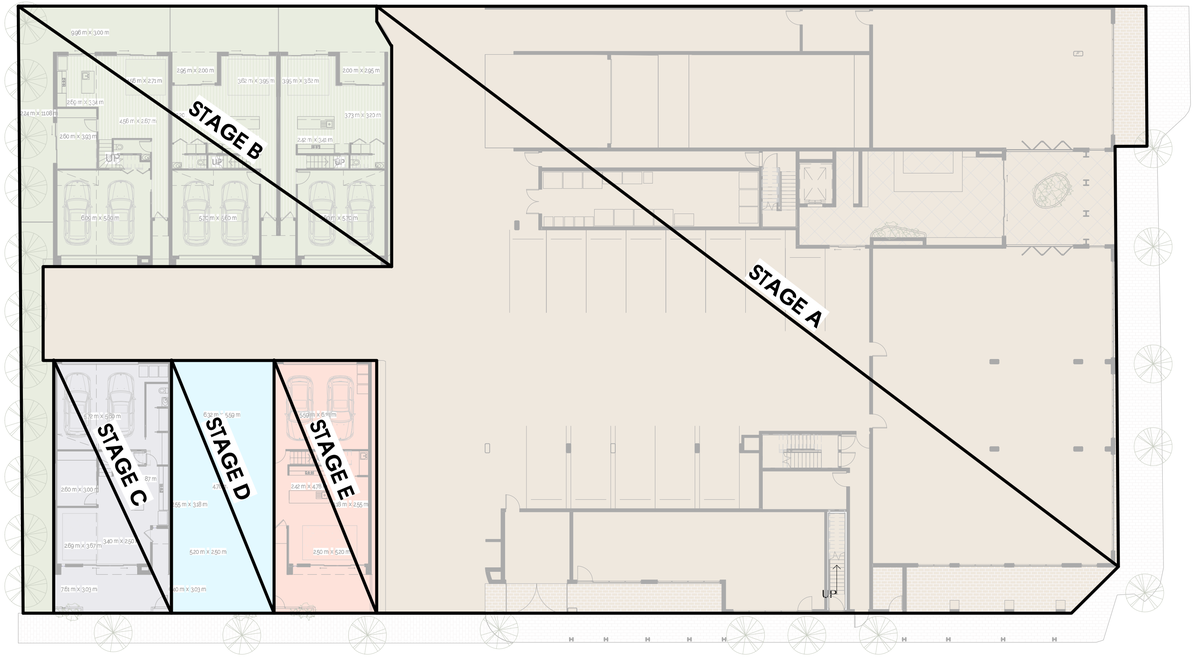
NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

1 PROPOSED SITE
1 : 500



2 GROUND FLOOR STAGING PLAN
1 : 200



REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
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SHEET
Proposed Site

PL.02

AUTHOR
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ISSUE
Response to referrals

26/07/2018

A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

1 DEMOLITION & INFRASTRUCTURE PLAN
1 : 100

DP 1221

DP 736

ALL EXISTING BUILDINGS ON SUBJECT SITE TO BE DEMOLISHED

ALL EXISTING BUILDINGS ON SUBJECT SITE TO BE DEMOLISHED

ALL EXISTING BUILDINGS ON SUBJECT SITE TO BE DEMOLISHED

ALL EXISTING BUILDINGS ON SUBJECT SITE TO BE DEMOLISHED

16
604m²

84
604m²

85
832m²

86
188m²

87
621m²

EXISTING TREES SHOWN DASHED TO BE REMOVED

EXISTING TREES SHOWN DASHED TO BE REMOVED

EXISTING TREES SHOWN DASHED TO BE REMOVED

EXISTING TREES SHOWN DASHED TO BE REMOVED

EXISTING TREES SHOWN DASHED TO BE REMOVED

EXISTING TREES SHOWN DASHED TO BE REMOVED

REMOVE EXISTING CROSSOVER, REINSTATE KERB & FOOTPATH TO COUNCIL'S REQUIREMENTS AND APPROVAL. GAIN ON STREET CAR PARK.

REMOVE EXISTING CROSSOVER, REINSTATE KERB & FOOTPATH TO COUNCIL'S REQUIREMENTS AND APPROVAL AND GAIN TWO NEW ON STREET VISITOR CAR PARKS

REMOVE EXISTING CROSSOVER, REINSTATE KERB & FOOTPATH TO COUNCIL'S REQUIREMENTS AND APPROVAL

MASONRY NAIL IN KERB
RL = 47·327m

PSM 6628/43495
RL = 47·599m

PERMANANT SURVEY MARK

UNLEY ROAD

OPEY AVENUE

NORTH

WEBER FRANKIW AND ASSOCIATES PTY.LTD.
Licensed Surveyors and Land Division Consultants
A.C.N. 008 173 957

DETAIL AND CONTOUR SURVEY

ALLOTMENTS 84,85,86 & 87 IN FP 10798 &
ALLOTMENT 16 IN DP 736
HUNDRED OF ADELAIDE
HYDE PARK

REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

SHEET
Demolition & Infrastructure Site Plan
PL.03

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

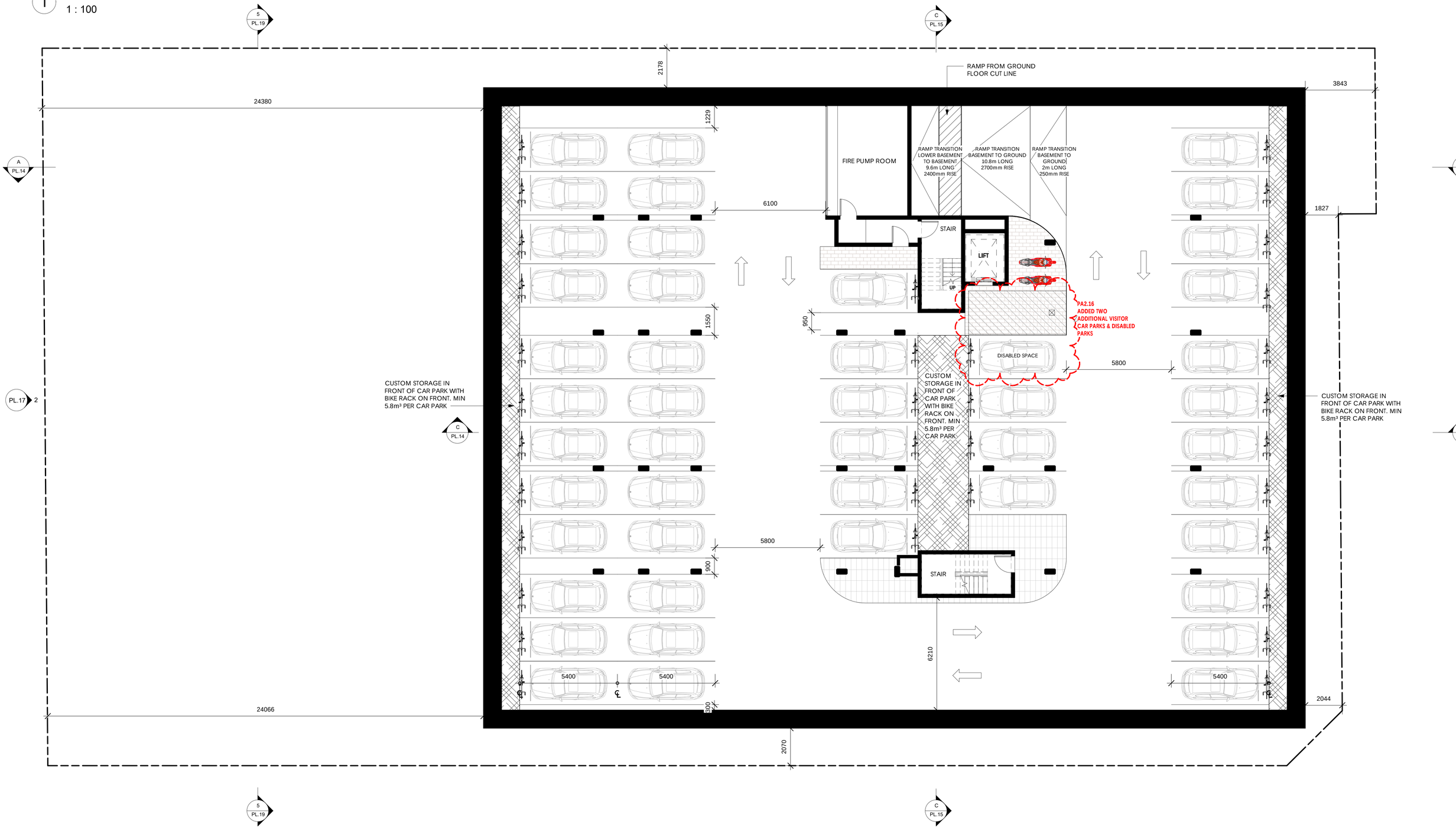
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

1 LOWER BASEMENT PLAN

1 : 100



REVISIONS

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PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
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SHEET
Lower Basement

PL.04

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

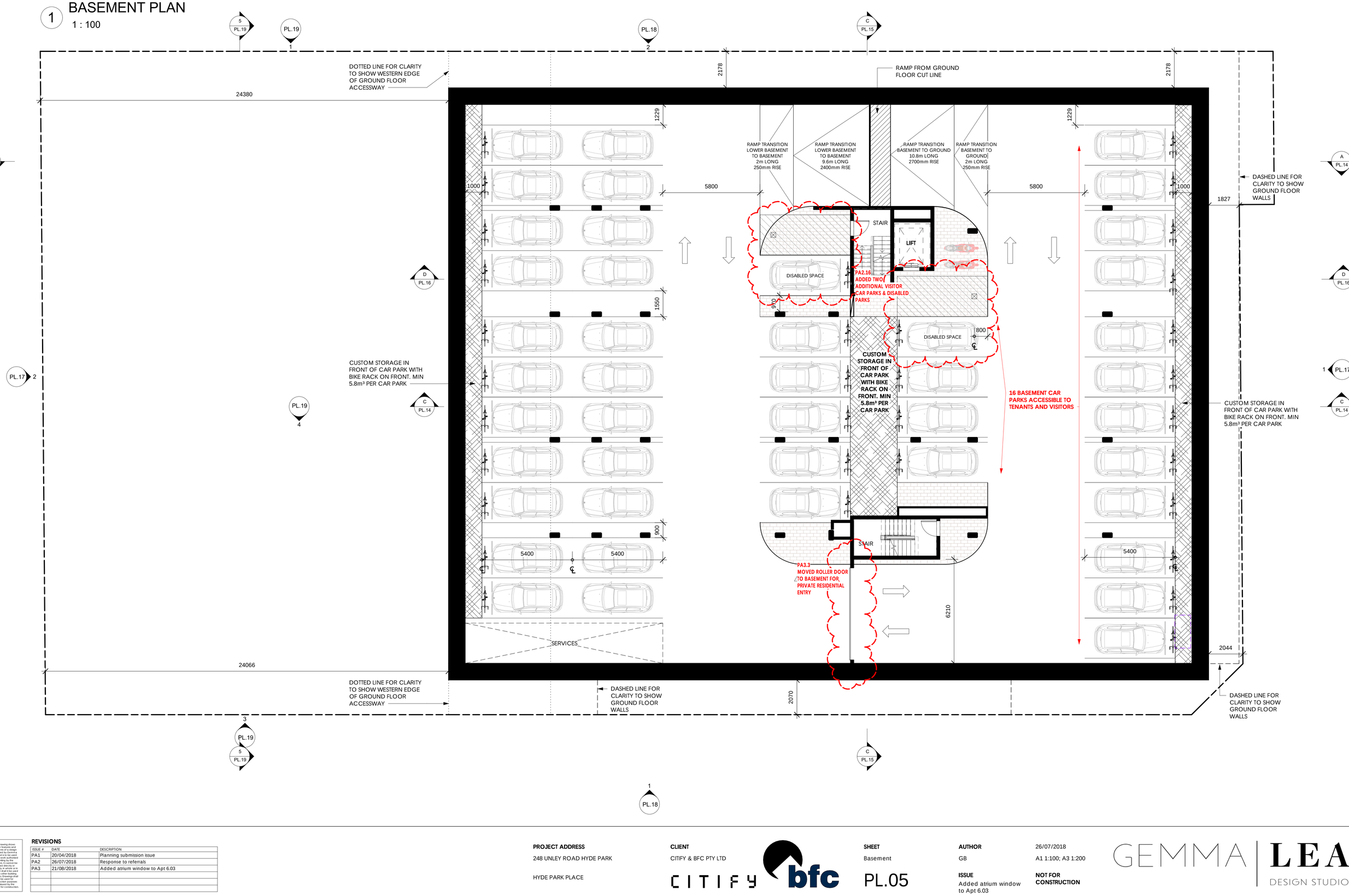
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

1 BASEMENT PLAN

1 : 100



REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals
PA3	21/08/2018	Added atrium window to Apt 6.03

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

SHEET
Basement

PL.05

AUTHOR
GB

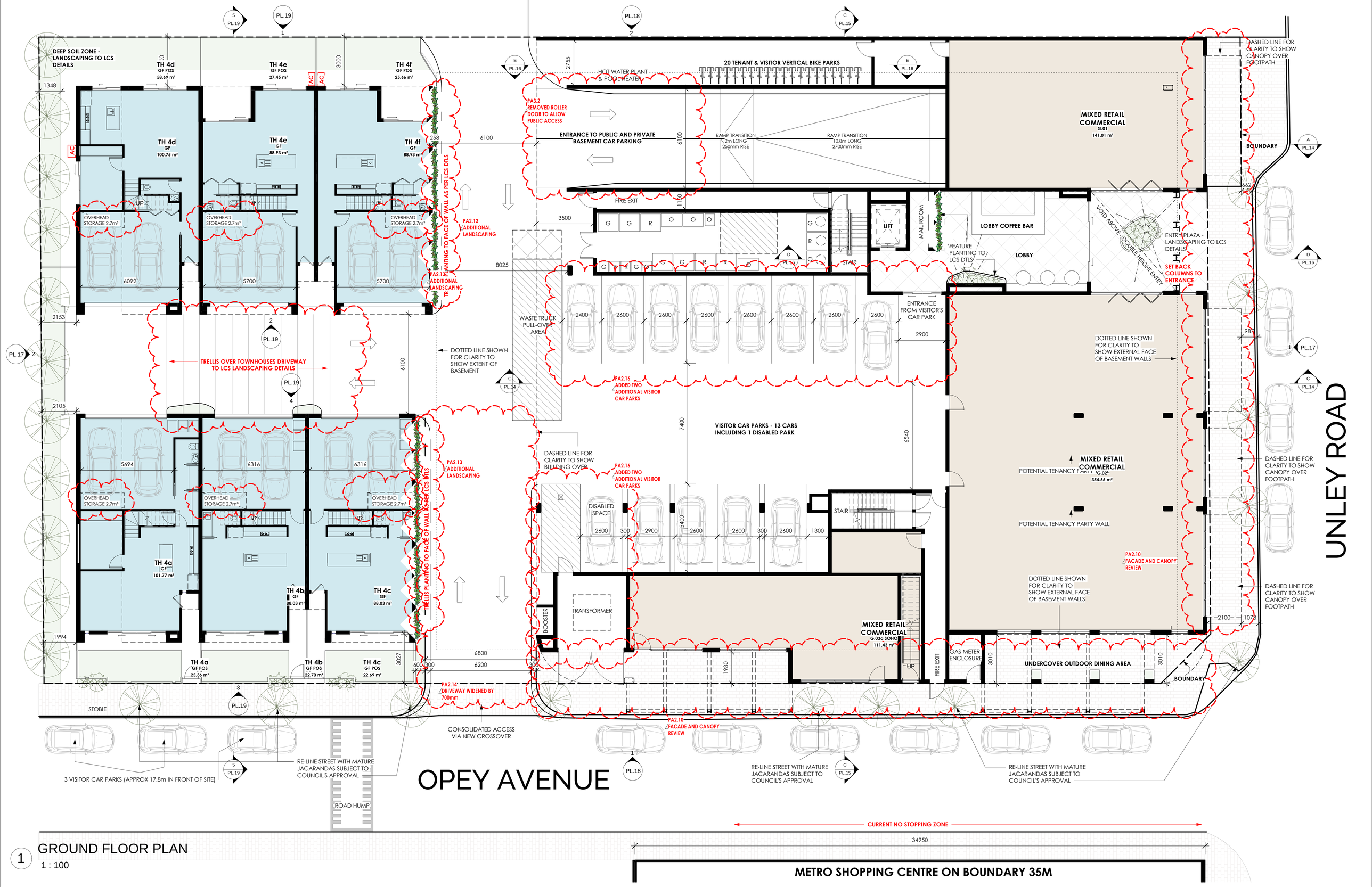
ISSUE
Added atrium window to Apt 6.03

26/07/2018

A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO



1 GROUND FLOOR PLAN

1 : 100

REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals
PA3	21/08/2018	Added atrium window to Apt 6.03

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

SHEET
Ground Floor

PL.06

AUTHOR
GB

ISSUE
Added atrium window to Apt 6.03

26/07/2018

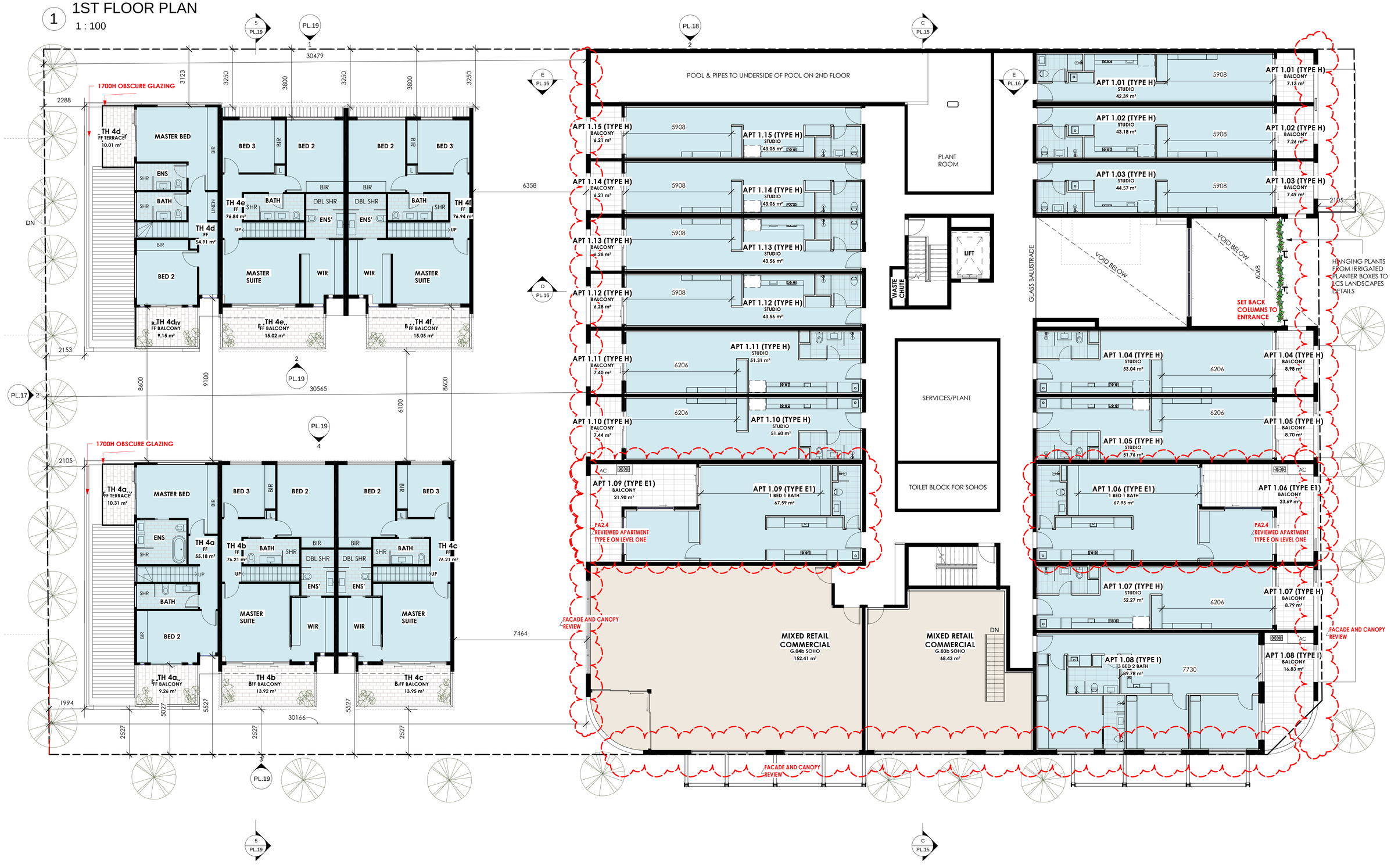
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

1 1ST FLOOR PLAN

1 : 100



REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

SHEET
First Floor

PL.07

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

1 2ND FLOOR PLAN

1 : 100

PA2.7
CHANGED COMMUNAL AREA LAYOUT AND FACILITIES & CHANGED TO INSIDE SPACE

AC CONDENSER LOCATION FOR LEVEL 1 STUDIO APARTMENTS

COMMON AREA
POOL & SPA
55.88 m²
LAP POOL

SPA

SL

COMMON AREA
POOL LOUNGE & BBQ
125.64 m²
POOL DECK

OPENABLE GLASS WALL

GYM & YOGA ROOM

COMMON AREA
GAMES ROOM
27.78 m²

COMMON AREA
TOILETS & SHRS
15.50 m²

FEMALE WC & SHOWER

MALE WC & SHOWER

SAUNA

WASTE CHUTE

COMMUNAL PIAZZA - PLANTING & SEATING TO LCS LANDSCAPES DETAILS

APT 2.10 (TYPE C)
2 BED 2 BATH
72.98 m²
APT 2.10 (TYPE C)
BALCONY
22.93 m²

APT 2.09 (TYPE D)
3 BED, 2 BATH
90.06 m²
APT 2.09 (TYPE D)
BALCONY
26.94 m²

APT 2.08 (TYPE E)
2 BED, 1 BATH
67.02 m²
APT 2.08 (TYPE E)
BALCONY
21.90 m²

APT 2.07 (TYPE F)
3 BED, 2 BATH
93.99 m²
APT 2.07 (TYPE F)
BALCONY
25.66 m²

APT 2.06 (TYPE G)
3 BED 3 BATH LOWER
60.77 m²
APT 2.06 (TYPE G)
BALCONY
29.30 m²

APT 2.01 (TYPE B)
2 BED 2 BATH
80.40 m²
APT 2.01 (TYPE B)
BALCONY
23.58 m²

APT 2.02 (TYPE C)
2 BED 2 BATH
73.20 m²
APT 2.02 (TYPE C)
BALCONY
24.92 m²

APT 2.03 (TYPE D)
3 BED 2 BATH
90.06 m²
APT 2.03 (TYPE D)
BALCONY
29.29 m²

APT 2.04 (TYPE E)
2 BED, 1 BATH
67.02 m²
APT 2.04 (TYPE E)
BALCONY
23.69 m²

APT 2.05 (TYPE F)
3 BED, 2 BATH
93.94 m²
APT 2.05 (TYPE F)
BALCONY
28.12 m²

REVIEWED APT TYPE F LAYOUT

REVIEWED APT TYPE F LAYOUT

AC

AC

AC

30479

31696

6234 5500 2353 5865

5108 5133 5463

5886 5920

4787 5223 600 5299

4786

9400

2000

3050 3010

A PL.14 · C PL.14 · D PL.16 · E PL.16 · PL.15 · PL.17 · PL.18 · PL.19

REVISIONS

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PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
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CITIFY bfc

SHEET
Second Floor

PL.08

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

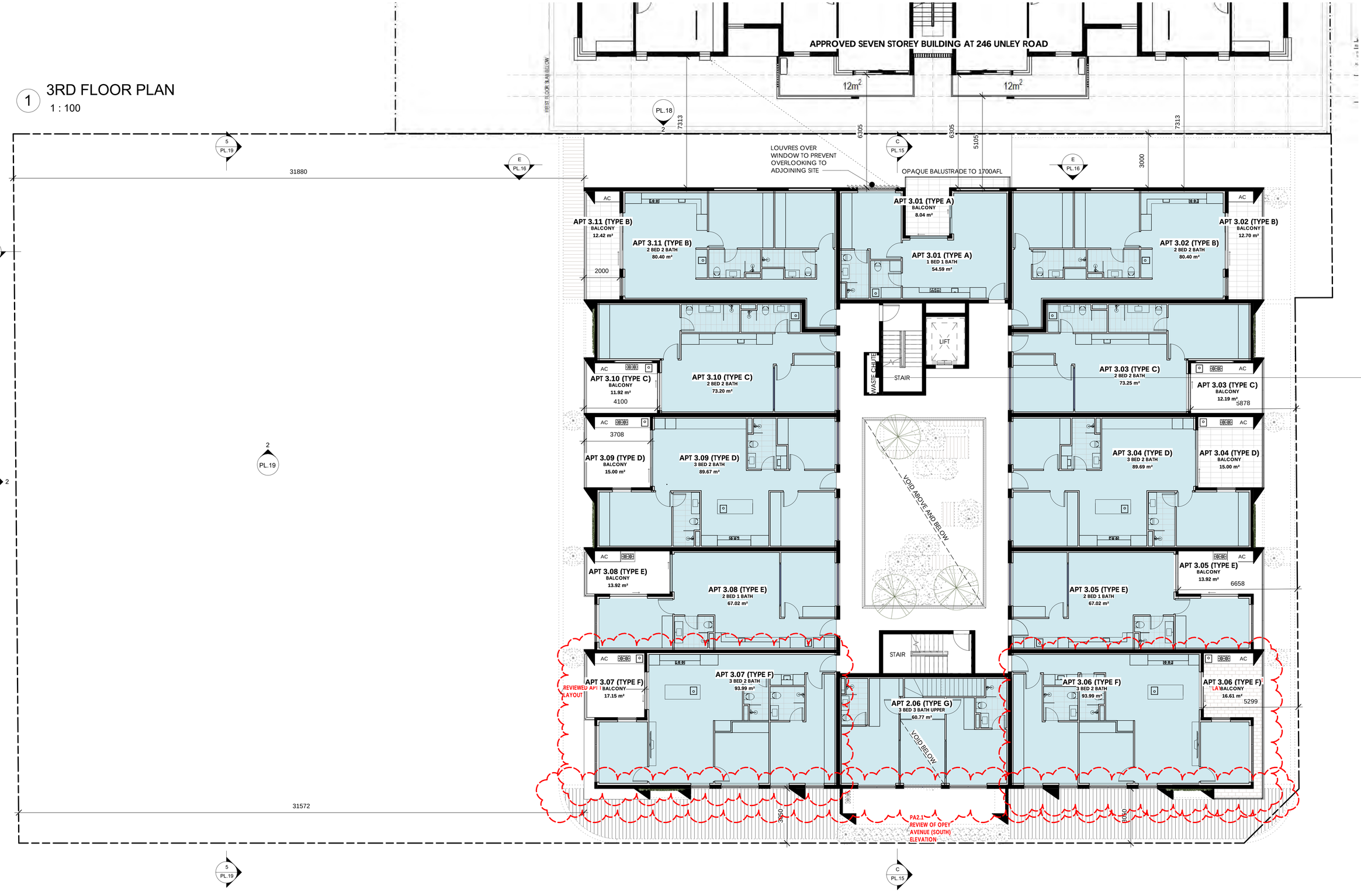
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

1 3RD FLOOR PLAN

1 : 100



REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Third Floor

PL.09

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

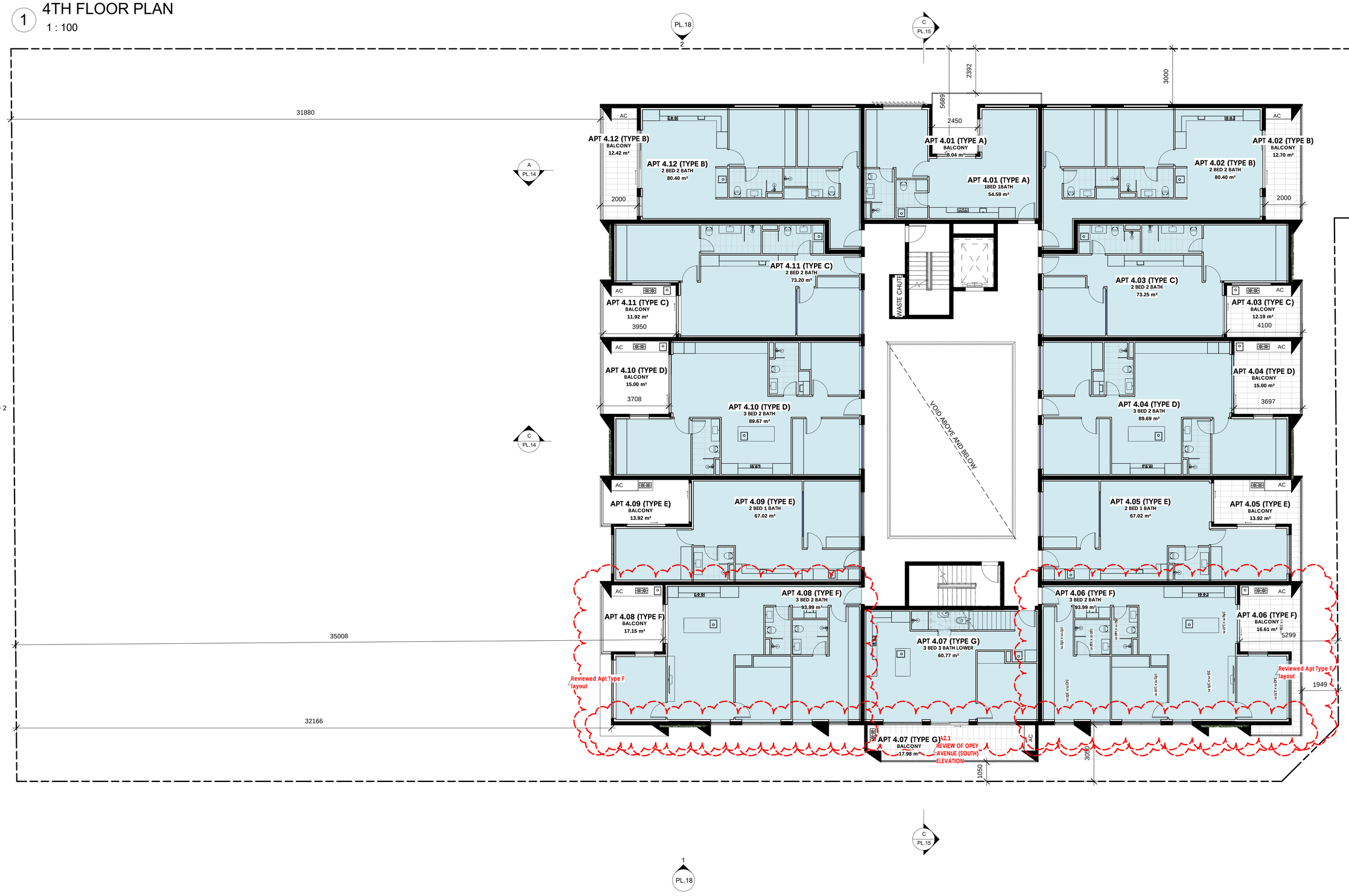
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

1 4TH FLOOR PLAN

1 : 100



REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Fourth Floor

PL.10

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

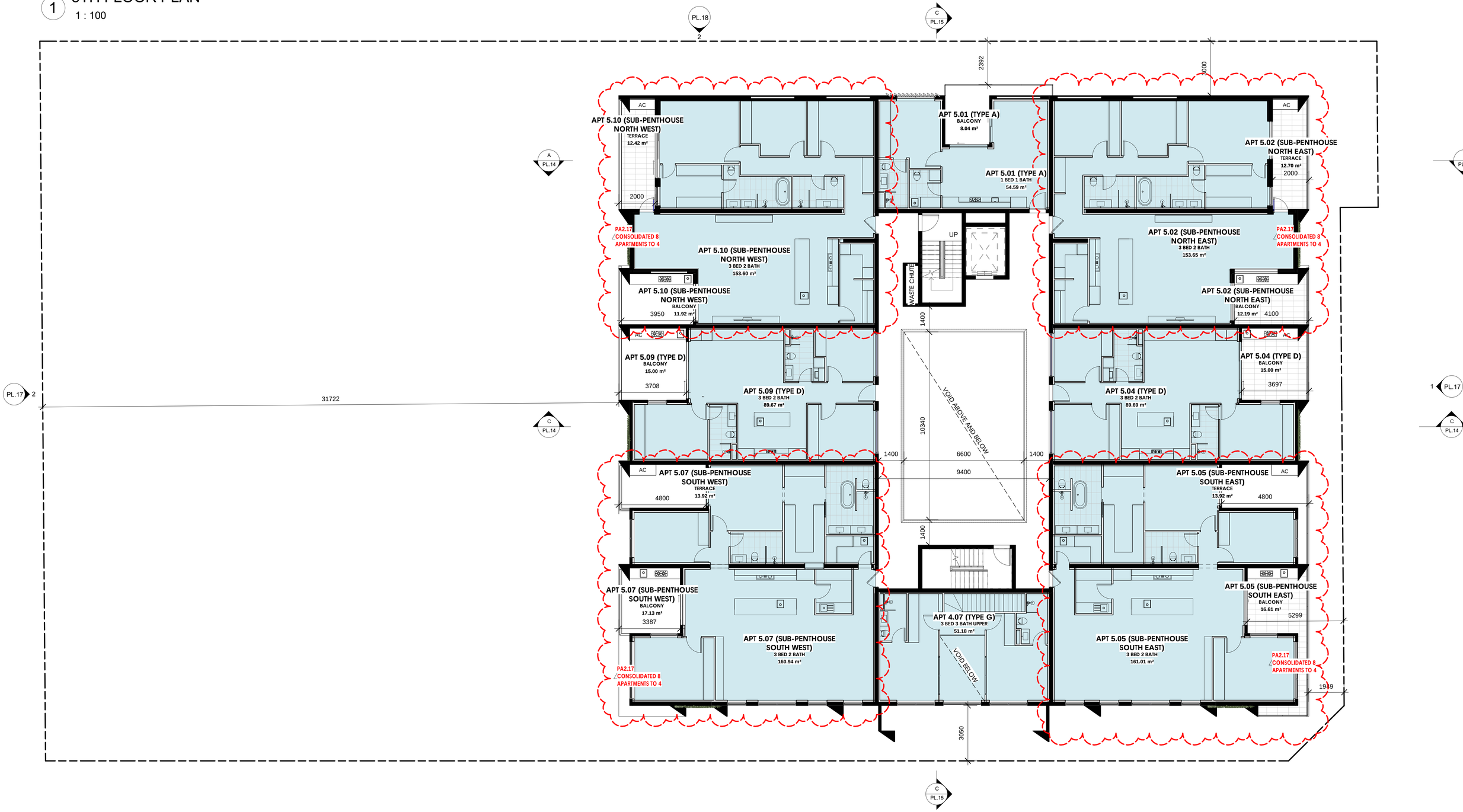
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

1 5TH FLOOR PLAN

1 : 100



REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
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CITIFY bfc

SHEET
Fifth Floor

PL.11

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

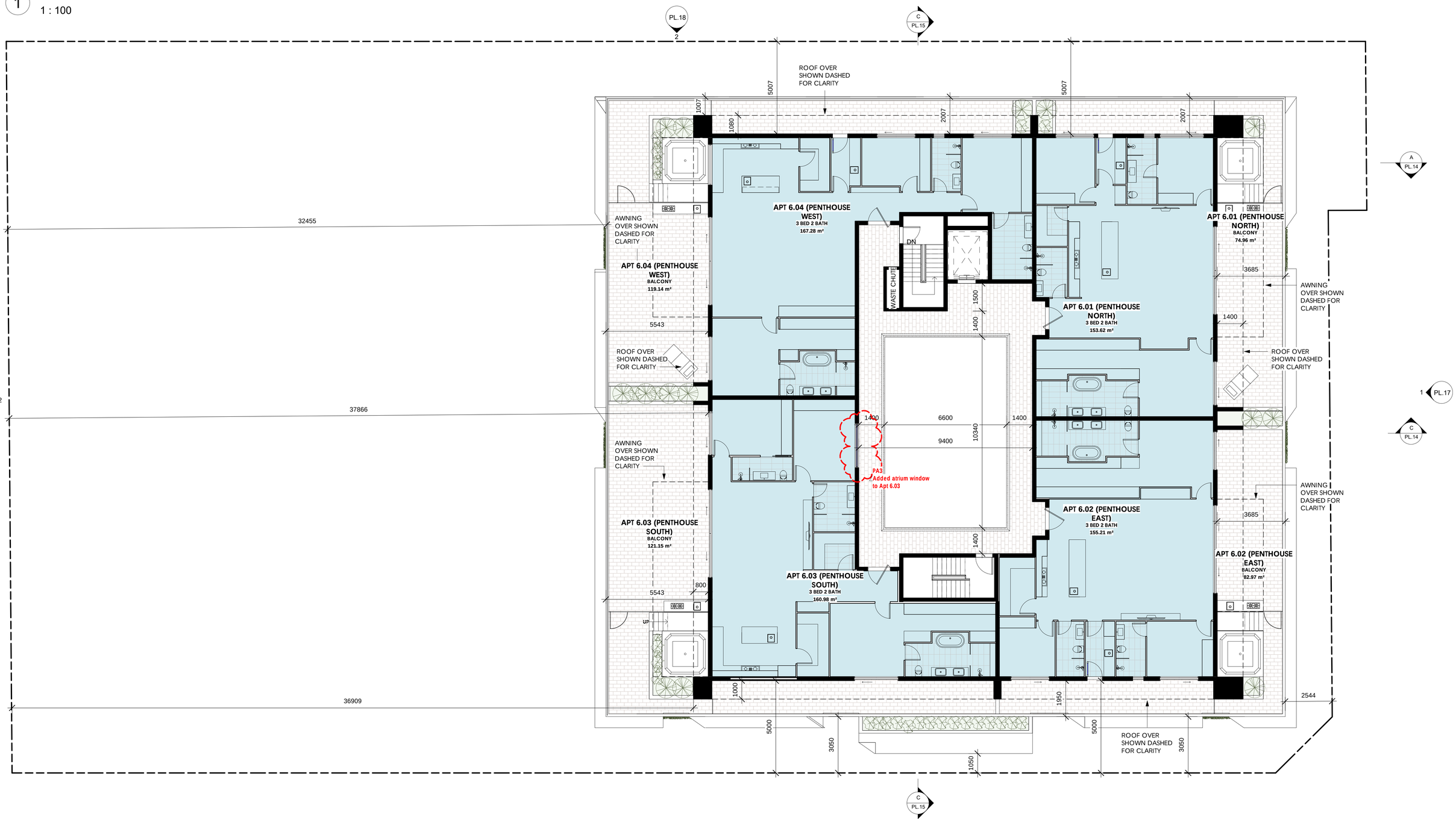
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

1 6TH FLOOR PLAN

1 : 100



REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals
PA3	21/08/2018	Added atrium window to Apt 6.03

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

SHEET
Sixth Floor

PL.12

AUTHOR
GB

ISSUE
Added atrium window to Apt 6.03

26/07/2018

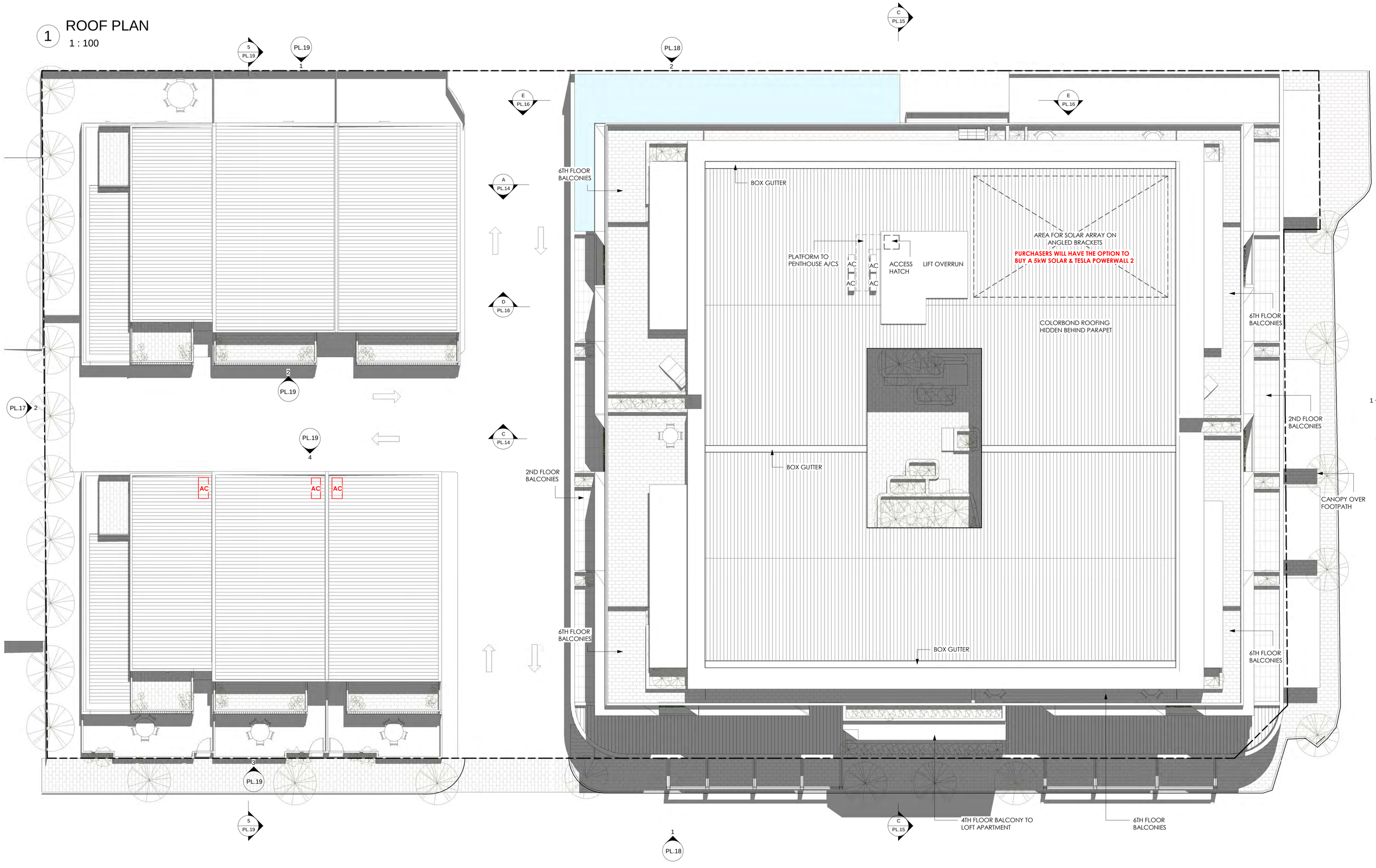
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

1 ROOF PLAN

1 : 100



REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Roof Plan

PL.13

AUTHOR
GB

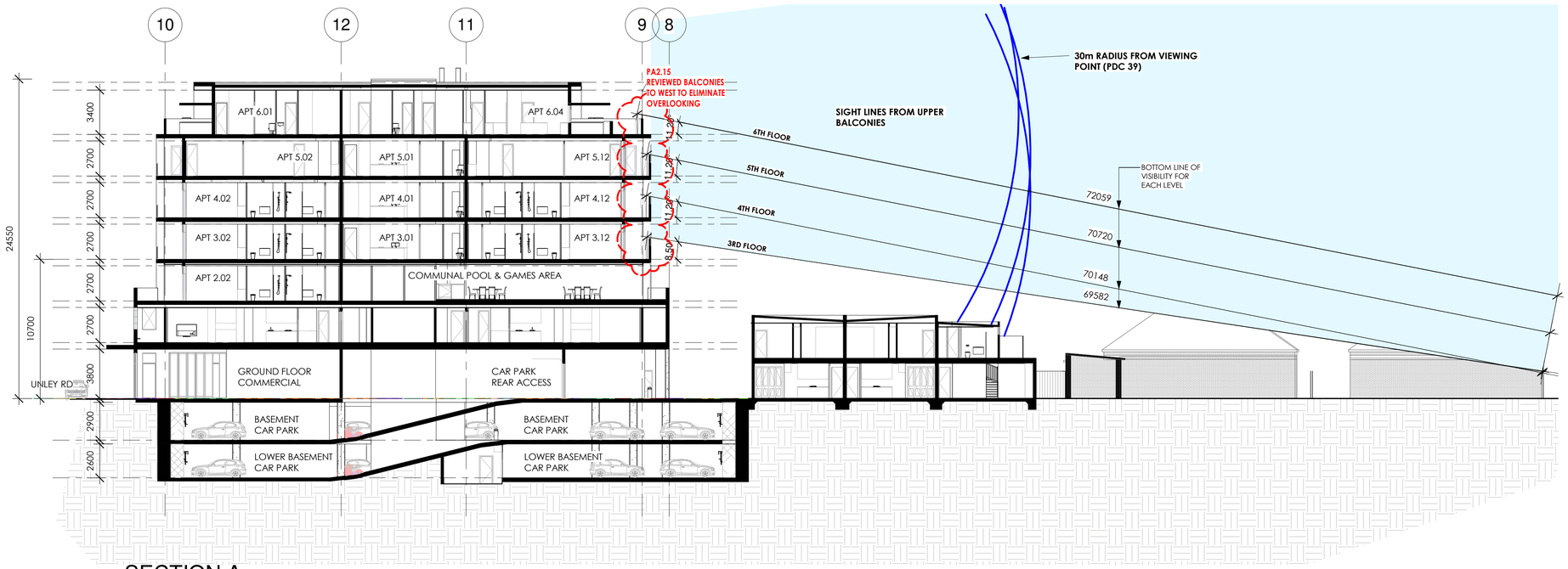
ISSUE
Response to referrals

26/07/2018

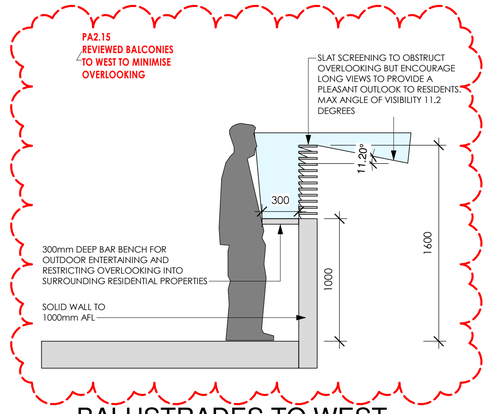
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

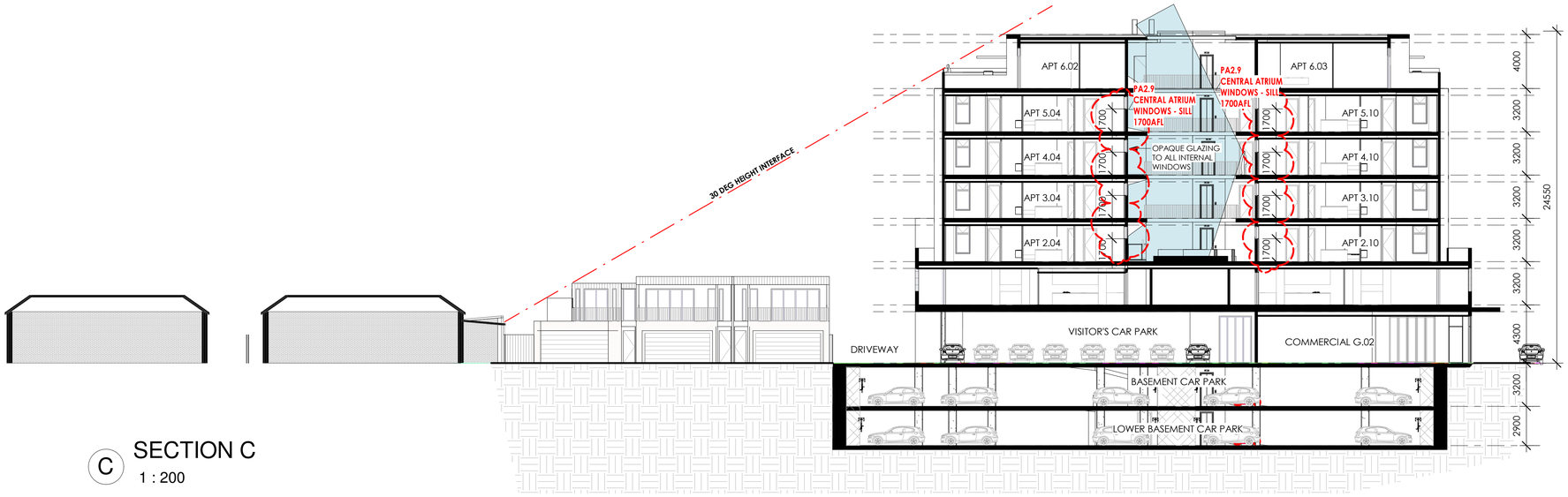
GEMMA | LEA DESIGN STUDIO



A SECTION A
1 : 200



1 BALUSTRADES TO WEST
1 : 25



C SECTION C
1 : 200

REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Design Sections

PL.14

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA
DESIGN STUDIO

C SECTION B
1 : 100

REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

SHEET
Design Sections

PL.15

AUTHOR
GB

ISSUE
Response to referrals

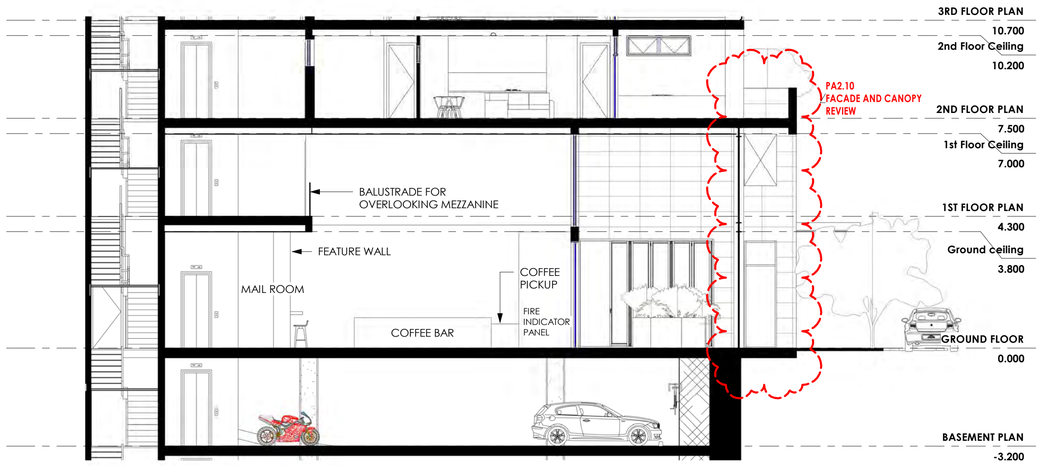
26/07/2018

A1 1:100; A3 1:200

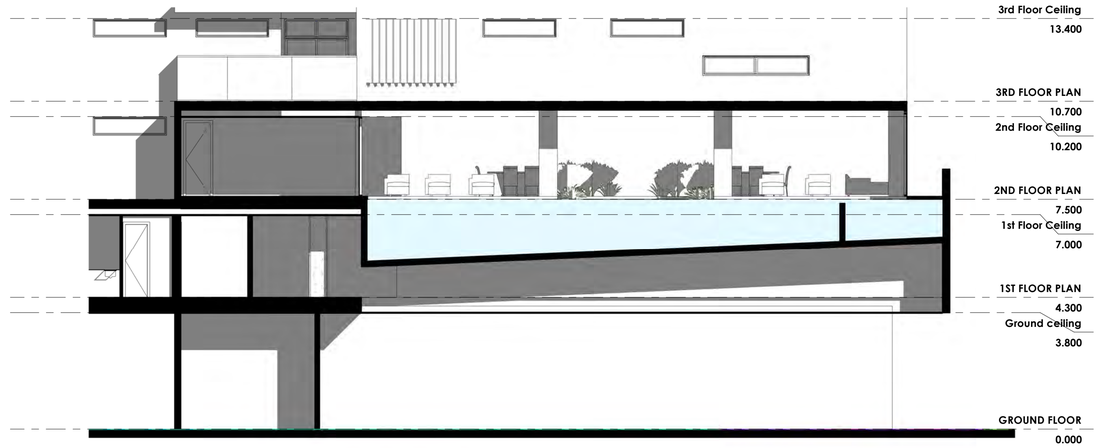
NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

D SECTION D - ENTRANCE LOBBY
1 : 100

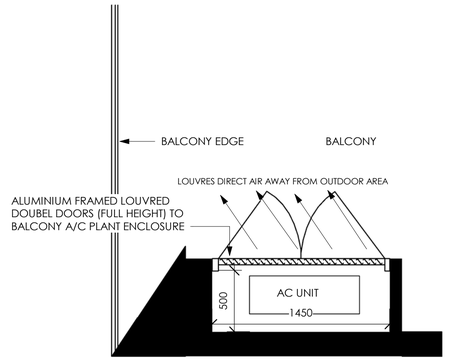


E SECTION E - POOL AREA SECTION
1 : 100



F SECTION F - FRONT TOWNHOUSES
1 : 100

1 TYPICAL AC ENCLOSURE
1 : 25



REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Design Sections

PL.16

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA
DESIGN STUDIO

1 EAST
1 : 100

2 WEST
1 : 100

MATERIAL LEGEND

KEY	DESCRIPTION
AAC	HEBEL WALLS IN WHITE
AW	DOUBLE GLAZED AWNING WNDOWS WITH CHARCOAL/BLACK FRAME
BST	BLUESTONE TILE
BV	BRICK VENEER IN RECLAIMED RED BRICK
GL	GLAZED BALUSTRADING TO 1000AFL
GL-O	GLAZED BALUSTRADING - OPAQUE TO 1500AFL
PC-C	CHARCOAL CONCRETE
PC-W	WHITE CONCRETE
RW	RENDERED SOLID FENCE IN HEBEL OR BLOCKS, PAINTED WHITE
SB	FLAT STEEL BAR BALUSTRADING POWDERCOATED IN BLACK
SC	VERTICAL STEEL CLADDING IN CHARCOAL/GREY
ST	FEATURE STEEL I BEAM COLUMNS
SW	SLIDING WINDOWS TO PODIUM BALCONIES FOR ACOUSTIC PROTECTION

REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Elevations

PL.17

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

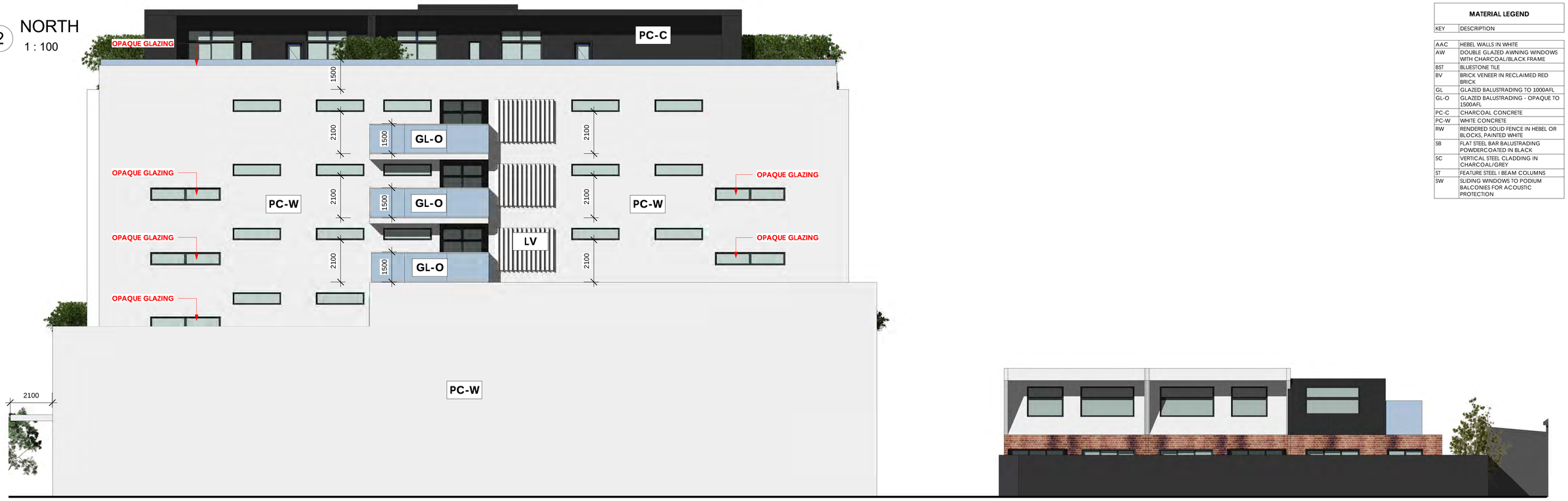
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA
DESIGN STUDIO

1 SOUTH
1 : 100

2 NORTH
1 : 100



MATERIAL LEGEND

KEY	DESCRIPTION
AAC	HEBEL WALLS IN WHITE
AW	DOUBLE GLAZED AWNING WINDOWS WITH CHARCOAL/BLACK FRAME
BST	BLUESTONE TILE
BV	BRICK VENEER IN RECLAIMED RED BRICK
GL	GLAZED BALUSTRADING TO 1000AFL
GL-O	GLAZED BALUSTRADING - OPAQUE TO 1500AFL
PC-C	CHARCOAL CONCRETE
PC-W	WHITE CONCRETE
RW	RENDERED SOLID FENCE IN HEBEL OR BLOCKS, PAINTED WHITE
SB	FLAT STEEL BAR BALUSTRADING POWDERCOATED IN BLACK
SC	VERTICAL STEEL CLADDING IN CHARCOAL/GREY
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SW	SLIDING WINDOWS TO PODIUM BALCONIES FOR ACOUSTIC PROTECTION

REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

SHEET
Elevations

PL.18

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

A1 1:100; A3 1:200

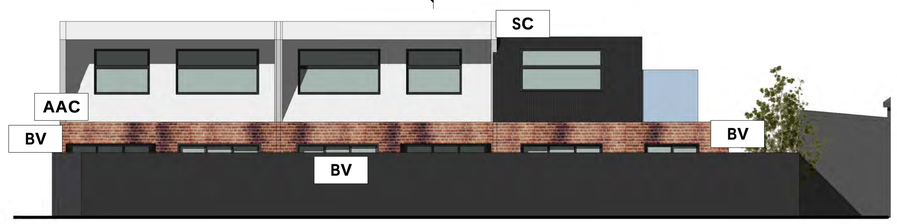
NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO

6 PERSPECTIVE - TOWNHOUSES

1 NORTH - TOWNHOUSES

1 : 100



2 TOWNHOUSES - INTERNAL SOUTH

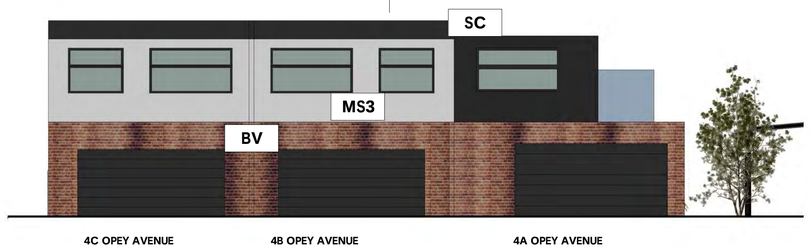
1 : 100

3 SOUTH - TOWNHOUSES

1 : 100

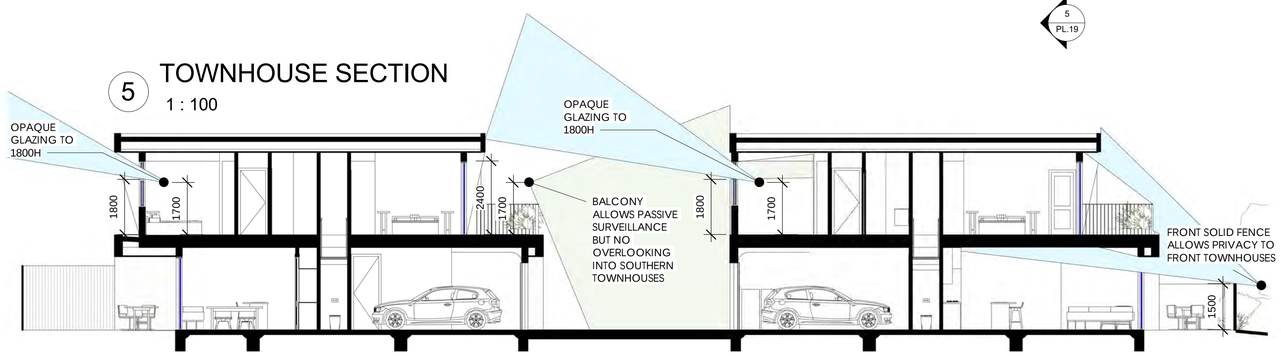
4 TOWNHOUSES - INTERNAL NORTH

1 : 100



5 TOWNHOUSE SECTION

1 : 100



MATERIAL LEGEND

KEY	DESCRIPTION
AAC	HEBEL WALLS IN WHITE
AW	DOUBLE GLAZED AWNING WINDOWS WITH CHARCOAL/BLACK FRAME
BST	BLUESTONE TILE
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PC-C	CHARCOAL CONCRETE
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SB	FLAT STEEL BAR BALUSTRADING POWDERCOATED IN BLACK
SC	VERTICAL STEEL CLADDING IN CHARCOAL/GREY
ST	FEATURE STEEL I BEAM COLUMNS
SW	SLIDING WINDOWS TO PODIUM BALCONIES FOR ACOUSTIC PROTECTION

REVISIONS

ISSUE #	DATE	DESCRIPTION
PA1	20/04/2018	Planning submission issue
PA2	26/07/2018	Response to referrals

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

HYDE PARK PLACE

CLIENT
CITIFY & BFC PTY LTD

SHEET
Townhouse Design

PL.19

AUTHOR
GB

ISSUE
Response to referrals

26/07/2018

A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

GEMMA | LEA DESIGN STUDIO


Sportsgirl
bfc
CITIFY


CITIFY
Jewellery
Jewellery
Jewellery
HYDE PARK PLACE
LUXURY RESIDENTIAL
Coffee


METRO
ADT


CREMORNE
HOTEL
DRIVE IN
Shoes of Malvern

CITIFY - 248 UNLEY ROAD, UNLEY

PROJECT : UNLEY ROAD DEVELOPMENT
CLIENT : CITIFY
DATE : 12.06.2018
REVISION : B

LOCATION PLAN

NOT TO SCALE

DRAWING LIST

LS.007.18.001 - ENTRY PLAZA - LANDSCAPE PLAN
LS.007.18.002 - DEEP SOIL ZONES & TOWNHOUSE COURTYARD - LANDSCAPE PLAN
LS.007.18.003 - TYPICAL TOWNHOUSE & LEVEL 1 BALCONY - LANDSCAPE PLAN
LS.007.18.004 - LEVEL 2 COMMUNAL PLAZA - LANDSCAPE PLAN
LS.007.18.005 - TYPICAL LEVEL 3, 4 & 5 BALCONY - LANDSCAPE PLAN
LS.007.18.006 - LEVEL 6 - LANDSCAPE PLAN
LS.007.18.007 - EASTERN ELEVATION
LS.007.18.008 - SOUTHERN ELEVATION

LCS LANDSCAPES
Defining Spaces

PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x Spread)
LOW/ MEDIUM SHRUBS + STRAPPYS				
Ag	Anigozanthos 'Gold Velvet'	Kangaroo Paw	140mm	600mm x 500mm
Aa	Aspidistra	Cast Iron Plant	140mm	900mm x 600mm
Bj	Buxus japonica	Japanese Box	140mm	600mm x 600mm
Cc	Chlorophytum comosum variegatum	Spider Plant	140mm	600mm x 300mm
Co	Columnea microphyalla	Flying Goldfish Plant	140mm	900mm x 2m
Dc	Dianella caerulea 'Silver Streak'	Silver Streak	140mm	500mm x 900mm
De	Dianella 'Emerald arch'	Flax Lily	140mm	500mm x 500mm
Dm	Dieffenbachia maculata	Tropical Tiki	140mm	1.5mm x 600mm
Dt	Dianella tasmanica 'Tas red'	Flax Lily	140mm	500mm x 500mm
Dr	Dichondra repens 'Silver Falls'	Dichondra Silver Falls	140mm	200mm x 1.5m
Lm	Liriope muscari 'Amethyst'	Lily Turf	140mm	400mm x 400mm
Ln	Lomandra longifolia 'Nyalla	Mat Rush	140mm	700mm x 700mm
Nm	Nandina Domestica 'Moonbay'	Heavenly Bamboo	140mm	600mmx 700mm
Sa	Sedum 'Autumn Joy'	Autumn Joy	140mm	600mm x 600mm
Tp	Tradescantia pallida	Purple Heart	140mm	300mm x 400mm
Ws	Westringia fruticosa 'Smokie'	Coastal Rosemary	140mm	500mm x 900mm
TALL SCREENING				
Vd	Viburnum 'Dense Fence'	Dense Fence	140mm	1.5 x 1m
FEATURE PLANT				
Px	Philodendron Xanadu (Dwarf)	Xanadu	140mm	750mm x 750mm
Re	Rhapis excelsa	Lady palm	45L	3m x 900mm
Zf	Zamia Furfuracea	Cardboard Palm	140mm	700mm x 900mm
Zz	Zamioculcas zamiifolia	Zanzibar Gem	140mm	600mm x 800mm
CLIMBER				
Fp	Ficus pumila	Creeping Fig	140mm	4m x 4m (CAN VARY)
Hh	Hedera helix	Common Ivy	140mm	20m x 15m
Pt	Parthenocissus tricuspidata	Boston Ivy	140mm	2m x 2m
Vv	Vitis vinifera	Grape Vine	140mm	15m x 5m
TREES				
Ce	Cercis canadensis 'Forest Pansy'	Purple leafed eastern bud	45L	5m x 5m
Dd	Dracena draco	Dragon Tree	45L	1m x 1.2m
Hf	Hymenosporum flavum	Native Frangipani	45L	5m x 8m
Jm	Jacaranda mimosifolia	Jacaranda	45L	10 x 8m
La	Lagerstromia indica 'Sioux'	Crepe Myrtle	45L	4.5m x 3m
Pc	Prunus cerasifera	Crimson Spire	45L	6m x 2m
Up	Ulmus parvifolium 'Todd'	Chinese Elm	45L	10m x 11m

3 CRESWELL ROAD LARGS NORTH SA 5016
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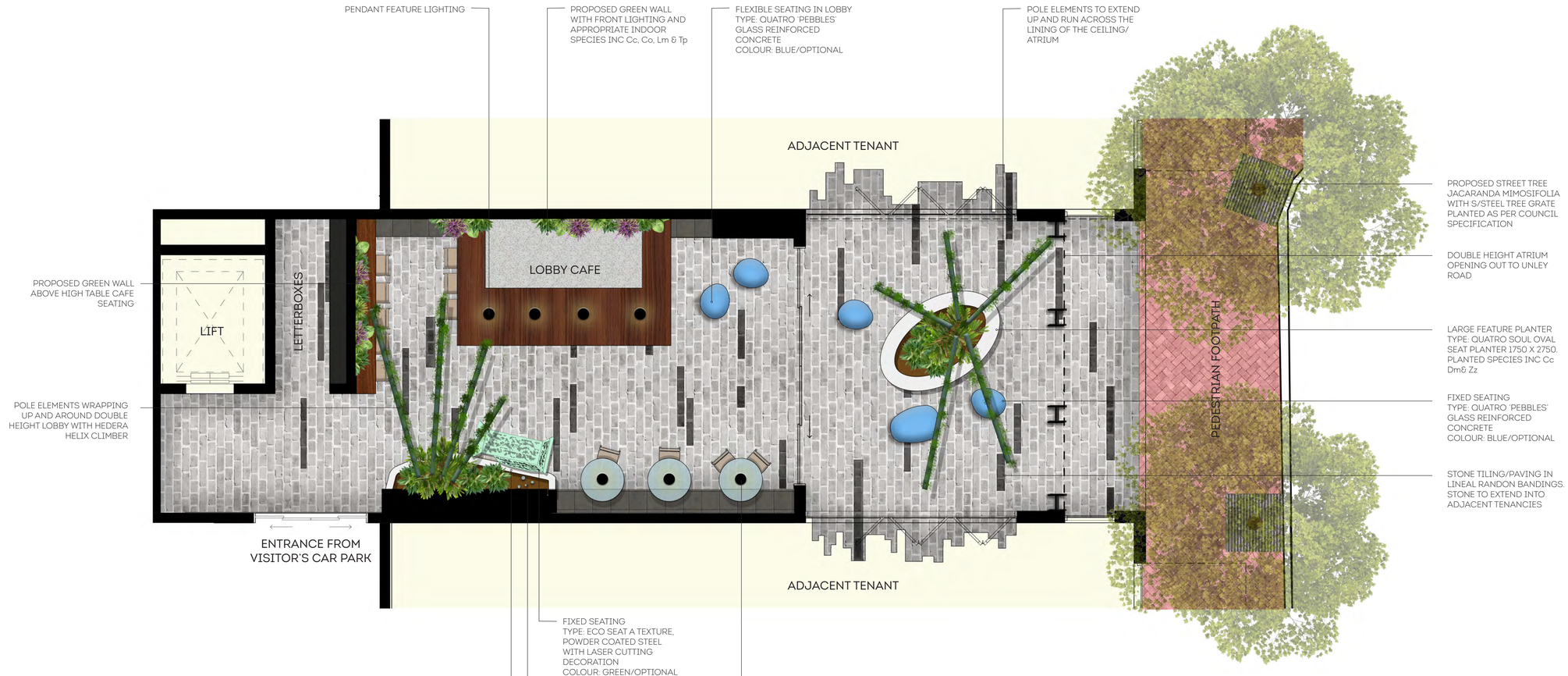
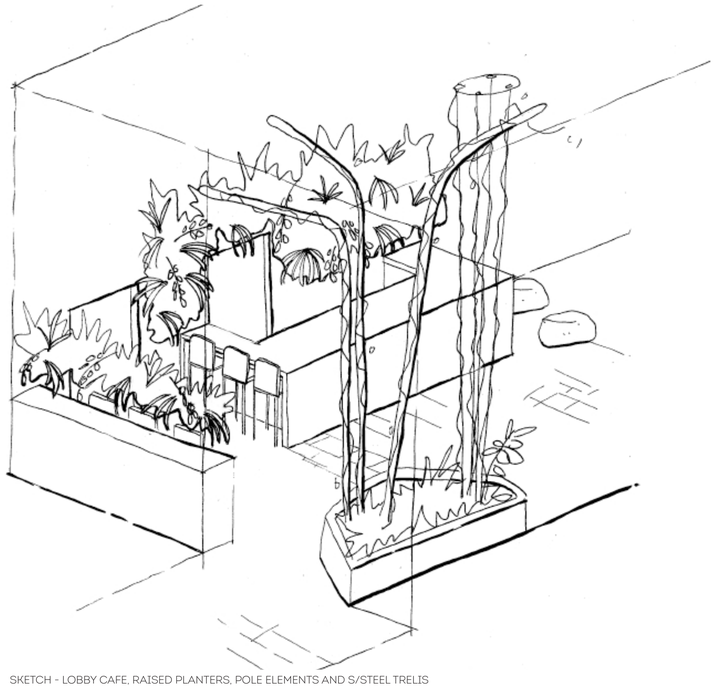
LANDSCAPE CONSTRUCTION SERVICES PTY

BUILDERS LICENCE: BLD175870 / ABN: 88 102 505 180





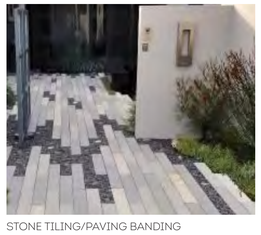
SKETCH - LOBBY CAFE, RAISED PLANTERS, POLE ELEMENTS AND S/STEEL TRELIS

ELEMENTS

CHLOROPHYTUM COMOSUM

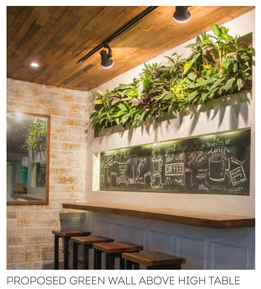
HEDERA HELIX

ECO SEAT A - THE ITALIAN LAB



STONE TILING/PAVING BANDING

VERTICAL DOUBLE HEIGHT TRELLIS WIRES



PROPOSED GREEN WALL ABOVE HIGH TABLE CAFE SEATING

ENTRY PLAZA LANDSCAPE LAYOUT

SCALE 1:50 AT A1

PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x Spread)
LOW/ MEDIUM SHRUBS + STRAPPYS				
Dm	Dieffenbachia maculata	Tropical Tiki	140mm	1.5mm x 600mm
Zz	Zamioculcas zamiifolia	Zanzibar Gem	140mm	600mm x 800mm
CLIMBER				
Hh	Hedera helix	Common Ivy	140mm	20m x 15m
GREENWALL				
Cc	Chlorophytum comosum variegatum	Spider Plant	140mm	600mm x 300mm
Co	Columnea microphyalla	Flying Goldfish Plant	140mm	900mm x 2m
Lm	Liriope muscari 'Amethyst'	Lily Turf	140mm	400mm x 400mm
Tp	Tradescantia pallida	Purple Heart	140mm	300mm x 400mm
TREES				
Jm	Jacaranda mimosifolia	Jacaranda	45L	10 x 8m

LIRIOPE MUSCARI 'AMETHYST'

COLUMNEA MICROPHYALLA

QUATRO 'PEBBLES'

PENDANT FEATURE LIGHTING

POLISHED FINISH OF RAISED PLANTER BOXES

DIEFFENBACHIA MACULATA

ZAMIOCULCAS ZAMIIFOLIA

Revision B: COUNCIL REQUESTED AMENDMENTS

LCS LANDSCAPES
Defining Spaces

Project:
248 UNLEY ROAD
UNLEY

Client:
JOEL WILKINSON
CITIFY GROUP
PO BOX 576 WELLAND SA 5007

Drawing:
ENTRY PLAZA
LANDSCAPE PLAN

Scale: 1:50@ A1

Drawn: KE

Checked: SK

Date: 12/07/2018

Dwg no: LS.007.18.001

Sheet: 1 of 8

Rev: B

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Landscape Construction Services Pty
Builders Licence: BLD175870 / ABN: 88 102 505 180

DEEP SOIL ZONES & TOWNHOUSE COURTYARD LANDSCAPE PLAN

SCALE 1:100 AT A1

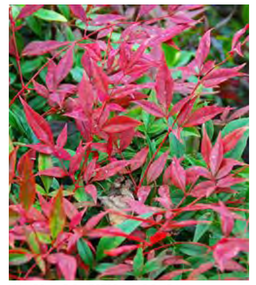
PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x Spread)
LOW/ MEDIUM SHRUBS + STRAPPYS				
Ag	Anigozanthos 'Gold Velvet'	Kangaroo Paw	140mm	600mm x 500mm
De	Dianella 'Emerald arch'	Flax Lily	140mm	500mm x 500mm
Ln	Lomandra longifolia 'Nyalla	Mat Rush	140mm	700mm x 700mm
Nm	Nandina Domestica 'Moonbay'	Heavenly Bamboo	140mm	600mmx 700mm
Zf	Zamia Furfuracea	Cardboard Palm	140mm	700mm x 900mm
TALL SCREENING				
Vd	Viburnum 'Dense Fence'	Dense Fence	140mm	1.5 x 1m
CLIMBER				
Pt	Parthenocissus tricuspidata	Boston Ivy	140mm	2m x 2m
Vv	Vitis vinifera	Grape Vine	140mm	15m x 5m
TREES				
Cc	Cercis canadensis 'Forest Pansy'	Purple leafed eastern bud	45L	5m x 5m
Jm	Jacaranda mimosifolia	Jacaranda	45L	10 x 8m
Pc	Prunus cerasifera	Crimson Spire	45L	6m x 2m
Up	Ulmus parvifolium 'Todd'	Chinese Elm	45L	10m x 11m

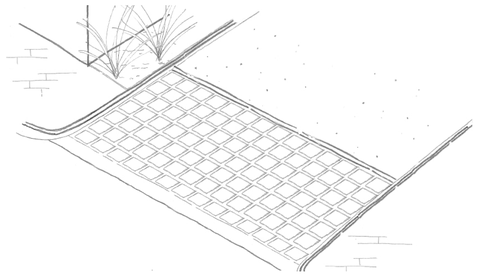

STREET TREE - JACARANDA MIMOSIFOLIA


PARTHENOCISSUS TRICUSPIDATA


S/STEEL TRELLIS WIRE


NANDINA DOMESTICA 'MOONBAY'


PRUNUS CERASIFERA


SKETCH - OPEY STREET CROSSOVER TO INTERNAL DRIVEWAYS


BLUESTONE COBBLES TO OPEY STREET CROSSOVER


ANIGOZANTHOS 'GOLD VELVET'


ZAMIA FURFURACEA


SYZYGIUM 'PINNACLE'


CERCIS CANADENSIS


STREET TREE GRATE


TOWNHOUSE COURTYARD TEXTURED TILES
COLOUR: SANDSTONE


LOMANDRA 'NYALLA'


DIANELLA 'EMERALD ARCH'


ULMUS PARVIFOLIUM 'TODD'


ENTRY PATHWAY WITH PAVEMENT BANDING

ELEMENTS

Revision B: COUNCIL REQUESTED AMENDMENTS

LCS LANDSCAPES

Defining Spaces

Project:
248 UNLEY ROAD
UNLEY

Client:
JOEL WILKINSON
CITIFY GROUP
PO BOX 576 WELLAND SA 5007

Drawing:
DEEP SOIL ZONES & TOWNHOUSE COURTYARD LANDSCAPE PLAN

Scale: 1:100@ A1
Drawn: KE
Checked: SK
Date: 12/07/2018
Dwg no: LS.007.18.002
Sheet: 2 of 8
Rev:B

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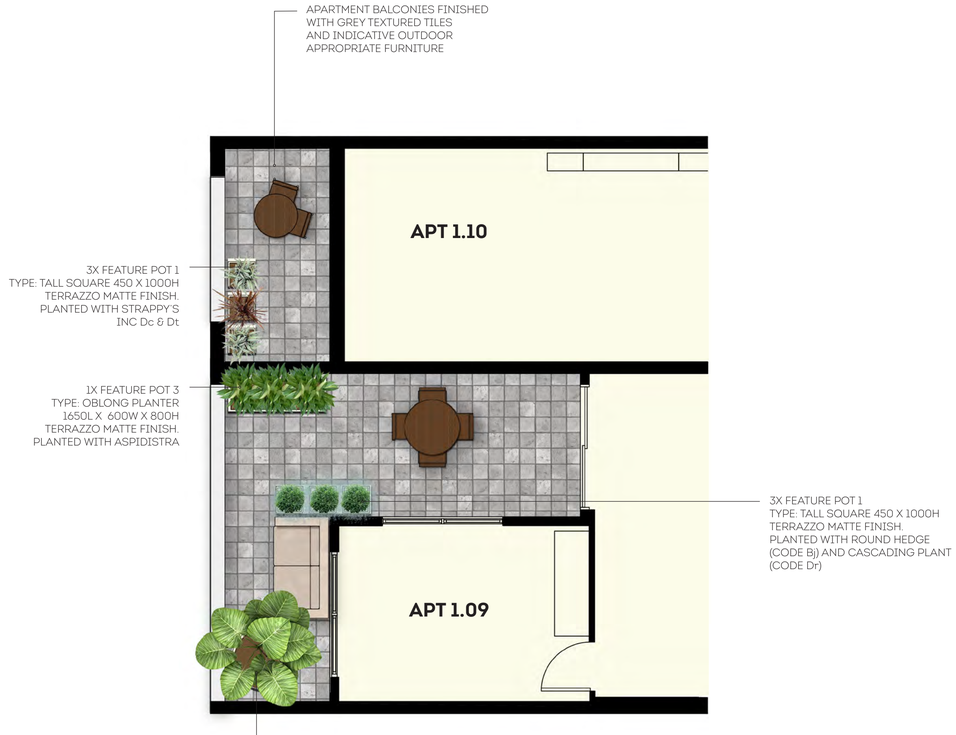
Landscape Construction Services Pty
Builders Licence: BLD175870 / ABN: 88 102 505 180



TOWNHOUSE 4A & 4B
TYPICAL TOWNHOUSE BALCONY LANDSCAPE PLAN

SCALE 1:50 AT A1

PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x Spread)
LOW/ MEDIUM SHRUBS + STRAPPYS				
Bj	Buxus japonica	Japanese Box	140mm	600mm x 600mm
Dr	Dichondra repens 'Silver Falls'	Dichondra Silver Falls	140mm	200mm x 1.5m
Dc	Dianella caerulea 'Silver Streak'	Silver Streak	140mm	500mm x 900mm
Dt	Dianella tasmanica 'Tas red'	Flax Lily	140mm	500mm x 500mm
FEATURE PLANT				
Re	Rhapis excelsa	Lady palm	45L	3m x 900mm


FEATURE POT 1 - TALL SQUARE


BUXUS JAPONICA

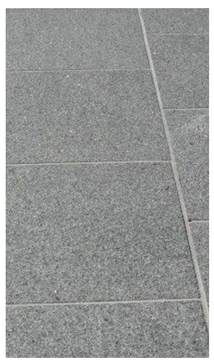

DIANELLA CAERULEA


DICHONDRA REPENS


DIANELLA TASMANICA 'TAS RED'


FEATURE TREE
RHAPIS EXCELSA


TIMBER DECKING


TEXTURED TILES
COLOUR: GREY


FEATURE POT 3 - OBLONG PLANTER

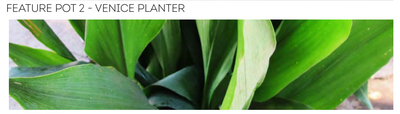
APT 1.09 & 1.10
TYPICAL L1 BALCONY LANDSCAPE PLAN

SCALE 1:50 AT A1

PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x Spread)
LOW/ MEDIUM SHRUBS + STRAPPYS				
Aa	Aspidistra	Cast Iron Plant	140mm	900mm x 600mm
Bj	Buxus japonica	Japanese Box	140mm	600mm x 600mm
Dc	Dianella carulea	Silver Streak	140mm	500mm x 900mm
Dt	Dianella tasmanica 'Tas Red'	Flaz Lily	140mm	500mm x 500mm
Dr	Dichondra repens 'Silver Falls'	Dichondra Silver Falls	140mm	200mm x 1.5m
FEATURE PLANT				
Px	Philodendron Xanadu (Dwarf)	Xanadu	140mm	750mm x 750mm


FEATURE POT 2 - VENICE PLANTER


ASPIDISTRA


PHILODENDRON XANADU (DWARF)


INDICATIVE BALCONY SETUP WITH FEATURE
POT 1 AND PERSONALISED FURNITURE

ELEMENTS

Revision B: COUNCIL REQUESTED AMENDMENTS

LCS LANDSCAPES
Defining Spaces

Project:
248 UNLEY ROAD
UNLEY

Client:
JOEL WILKINSON
CITIFY GROUP
PO BOX 576 WELLAND SA 5007

Drawing:
TYPICAL TOWNHOUSE & LEVEL 1 BALCONY LANDSCAPE PLAN

Scale: 1:50@ A1
Drawn: KE
Checked: SK
Date: 12/07/2018
Dwg no: LS.007.18.003
Sheet: 3 of 8
Rev: B

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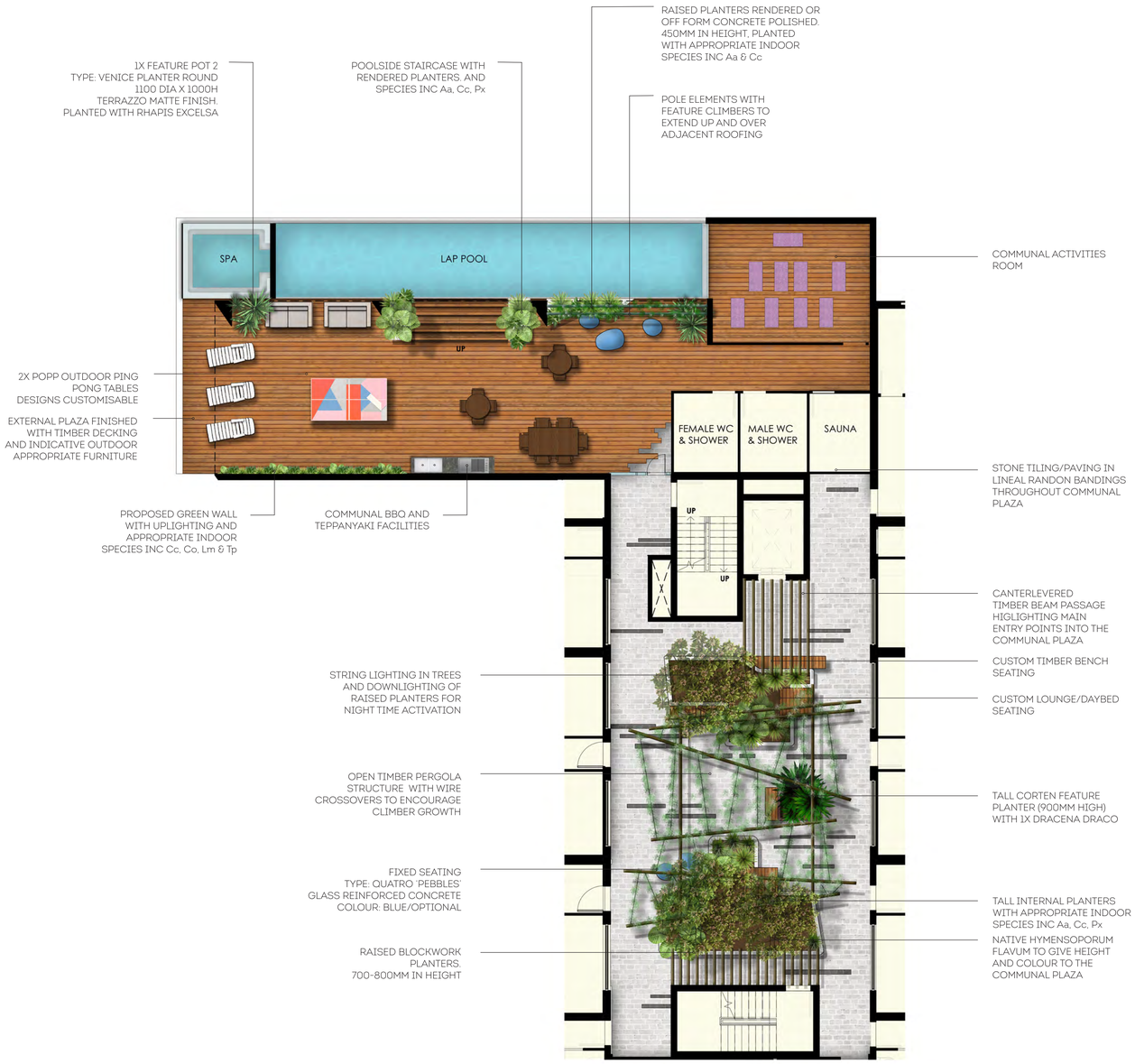
Landscape Construction Services Pty
Builders Licence: BLD175870 / ABN: 88 102 505 180

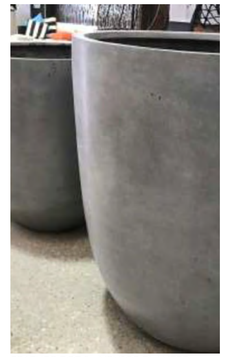


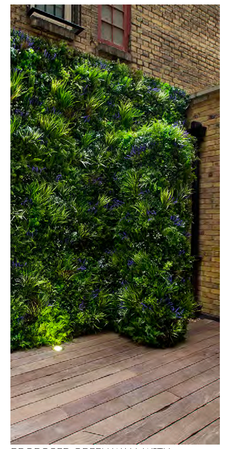
COMMUNAL PLAZA
L2 LANDSCAPE PLAN

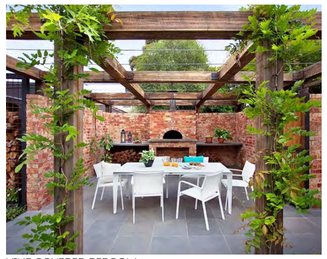
SCALE 1:50 AT A1

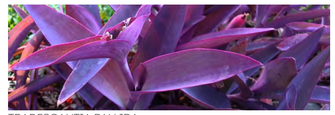
PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x Spread)
LOW/ MEDIUM SHRUBS + STRAPPYS				
Aa	Aspidistra	Cast Iron Plant	140mm	900mm x 600mm
FEATURE PLANT				
Px	Philodendron Xanadu (Dwarf)	Xanadu	140mm	750mm x 750mm
Re	Rhapis excelsa	Lady palm	45L	3m x 900mm
CLIMBER				
Hh	Hedera helix	Common Ivy	140mm	20m x 15m
TREES				
Dd	Dracena draco	Dragon Tree	45L	1m x 1.2m
Hf	Hymenosporum flavum	Native Frangipani	45L	5m x 8m
GREENWALL				
Cc	Chlorophytum comosum variegatum	Spider Plant	140mm	600mm x 300mm
Co	Columnea microphyalla	Flying Goldfish Plant	140mm	900mm x 2m
Lm	Liriope muscari 'Amethyst'	Lily Turf	140mm	400mm x 400mm
Tp	Tradescantia pallida	Purple Heart	140mm	300mm x 400mm


FEATURE POT 2 - VENICE PLANTER

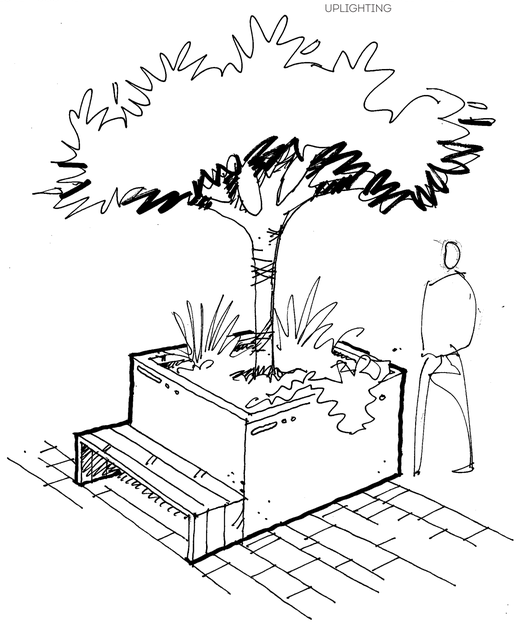

PROPOSED GREEN WALL WITH UPLIGHTING


VINE COVERED PERGOLA


TRADESCANTIA PALLIDA

LIRIOPE MUSCARI 'AMETHYST'


DRACENA DRACO


SKETCH: CORTEN FEATURE PLANTER WITH DRACENA DRACO


HYMENOSPORUM FLAVUM


TIMBER DECKING


POPP OUTDOOR PING PONG TABLE


CORTEN STEEL FINISH


ASPIDISTRA


CHLOROPHYTUM COMOSUM


BLOCKWORK PLANTERS WITH
FEATURE LIGHTING


CUSTOM LOUNGE/DAYBED SEATING


PHILODENDRON XANADU


CUSTOM TIMBER SEATING


QUATRO 'PEBBLES'

ELEMENTS

Revision B: COUNCIL REQUESTED AMENDMENTS

LCS LANDSCAPES

Defining Spaces

Project:
248 UNLEY ROAD
UNLEY

Client:
JOEL WILKINSON
CITIFY GROUP
PO BOX 576 WELLAND SA 5007

Drawing:
LEVEL 2 COMMUNAL PLAZA
LANDSCAPE PLAN

Scale: 1:50@ A1

Drawn: KE

Checked: SK

Date: 12/07/2018

Dwg no: LS.007.18.004

Sheet: 4 of 8

Rev: B

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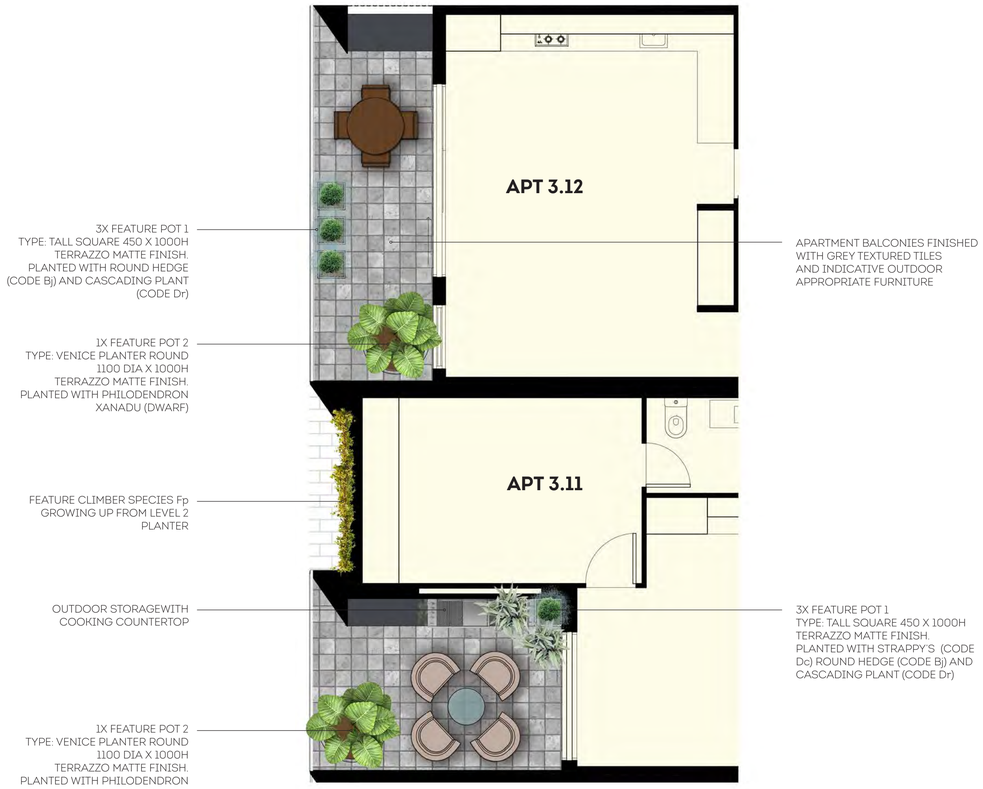
Landscape Construction Services Pty
Builders Licence: BLD175870 / ABN: 88 102 505 180

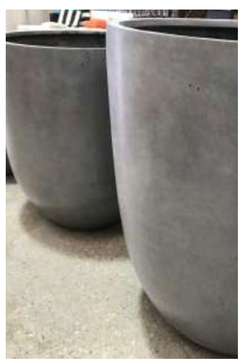


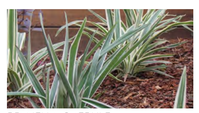
APT 3.11 & 3.12
TYPICAL L3, 4 & 5 BALCONY LANDSCAPE PLAN

SCALE 1:50 AT A1

PLANTING SCHEDULE

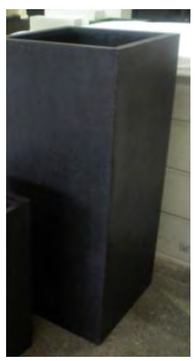
CODE	SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x Spread)
LOW/ MEDIUM SHRUBS + STRAPPYS				
Bj	Buxus japonica	Japanese Box	140mm	600mm x 600mm
Dr	Dichondra repens 'Silver Falls'	Dichondra Silver Falls	140mm	200mm x 1.5m
Dc	Dianella caerulea 'Silver Streak'	Silver Streak	140mm	500mm x 900mm
CLIMBER				
Fp	Ficus pumila	Creeping Fig	140mm	4m x 4m (CAN VARY)
FEATURE PLANT				
Px	Philodendron Xanadu (Dwarf)	Xanadu	140mm	750mm x 750mm


FEATURE POT 2 - VENICE PLANTER


DIANELLA CAERULEA

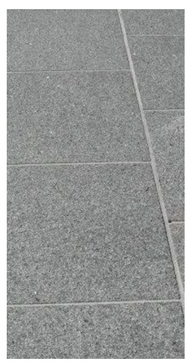

DICHONDRA REPENS


BUXUS JAPONICA

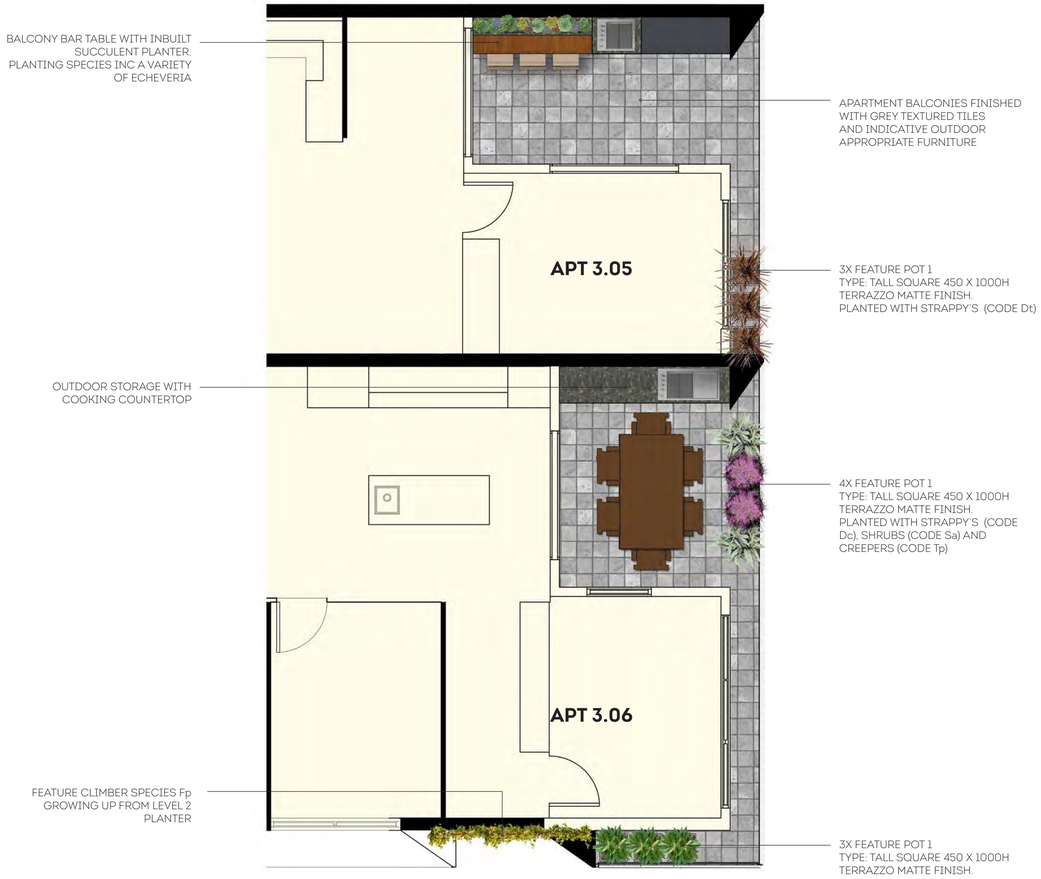

FEATURE POT 1 - TALL SQUARE


PHILODENDRON XANADU (DWARF)


FEATURE CLIMBER
FICUS PUMILA


TEXTURED TILES
COLOUR: GREY

ELEMENTS



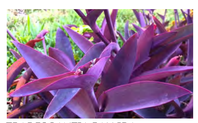
APT 3.05 & 3.06
TYPICAL L3, 4 & 5 BALCONY LANDSCAPE PLAN

SCALE 1:50 AT A1

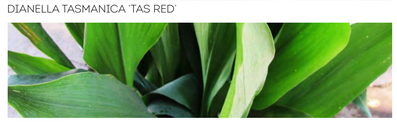
PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x Spread)
LOW/ MEDIUM SHRUBS + STRAPPYS				
Aa	Aspidistra	Cast Iron Plant	140mm	900mm x 600mm
Dc	Dianella caerulea 'Silver Streak'	Silver Streak	140mm	500mm x 900mm
Dt	Dianella tasmanica 'Tas red'	Flax Lily	140mm	500mm x 500mm
Sa	Sedum 'Autumn Joy'	Autumn Joy	140mm	600mm x 600mm
Tp	Tradescantia pallida	Purple Heart	140mm	300mm x 400mm
SUCCULENT/CLIMBER				
Ec	Echeveria (Variation)	-	75mm	150mm x 150mm
Fp	Ficus pumila	Creeping Fig	140mm	4m x 4m (CAN VARY)
FEATURE PLANT				
Re	Rhapis excelsa	Lady palm	45L	3m x 900mm

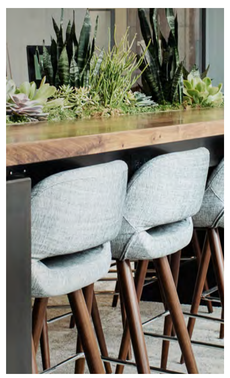

SEDUM 'AUTUMN JOY'


TRADESCANTIA PALLIDA


DIANELLA TASMANICA 'TAS RED'


ASPIDISTRA


FEATURE TREE
RHAPIS EXCELSA


BALCONY BAR TABLE WITH PLANTER OF
ECHEVERIA (VARIOUS)

Revision B: COUNCIL REQUESTED AMENDMENTS

LCS LANDSCAPES

Defining Spaces

Project:
248 UNLEY ROAD
UNLEY

Client:
JOEL WILKINSON
CITIFY GROUP
PO BOX 576 WELLAND SA 5007

Drawing:
TYPICAL LEVEL 3, 4 & 5 BALCONY
LANDSCAPE PLAN

Scale: 1:50@ A1

Drawn: KE

Checked: SK

Date: 12/07/2018

Dwg no: LS.007.18.005

Sheet: 5 of 8

Rev: B

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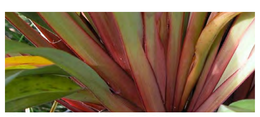
Landscape Construction Services Pty
Builders Licence: BLD175870 / ABN: 88 102 505 180

APT 6.03
L6 LANDSCAPE PLAN

SCALE 1:50 AT A1

PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x Spread)
LOW/ MEDIUM SHRUBS + STRAPPYS				
Ag	Anigozanthos 'Gold Velvet'	Kangaroo Paw	140mm	600mm x 500mm
Aa	Aspidistra	Cast Iron Plant	140mm	900mm x 600mm
Bj	Buxus japonica	Japanese Box	140mm	600mm x 600mm
Dc	Dianella caerulea 'Silver Streak'	Silver Streak	140mm	500mm x 900mm
Dr	Dichondra repens 'Silver Falls'	Dichondra Silver Falls	140mm	200mm x 1.5m
Dt	Dianella tasmanica 'Tas red'	Flax Lily	140mm	500mm x 500mm
Sa	Sedum 'Autumn Joy'	Autumn Joy	140mm	600mm x 600mm
Tp	Tradescantia pallida	Purple Heart	140mm	300mm x 400mm
Ws	Westringia fruticosa 'Smokie'	Coastal Rosemary	140mm	500mm x 900mm
FEATURE PLANT				
Px	Philodendron Xanadu (Dwarf)	Xanadu	140mm	750mm x 750mm
Re	Rhapis excelsa	Lady palm	45L	3m x 900mm
CLIMBER				
Fp	Ficus pumila	Creeping Fig	140mm	4m x 4m (CAN VARY)
TREES				
La	Lagerstromia indica 'Sioux'	Crepe Myrtle	45L	4.5m x 3m


DIANELLA TASMANICA 'TAS RED'


RHAPIS EXCELSA


DECKING & INBUILT SPA


ASPIDISTRA


PHILODENDRON XANADU

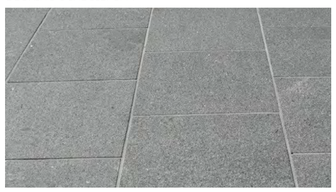

DIANELLA CAERULEA


DICHONDRA REPENS


BUXUS JAPONICA


FEATURE POT 3 - OBLONG PLANTER


WESTRINGIA FRUTICOSA 'SMOKIE'

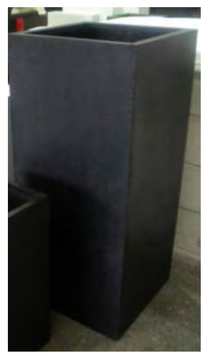

TEXTURED TILES
COLOUR: GREY


FEATURE TREE
LAGERSTROMIA INDICA 'SIOUX'


FEATURE SCREEN SURROUNDING SPA


SEDUM 'AUTUMN JOY'


TRADESCANTIA PALLIDA


FEATURE POT 1 - TALL SQUARE


REEDED TIMBER DECKING & SPA SURROUNDS


ANIGOZANTHOS 'GOLD VELVET'


FEATURE POT 4 - QUATRO SQUARE TALL CIVIC PLANTER

ELEMENTS

Revision B: COUNCIL REQUESTED AMENDMENTS

LCS LANDSCAPES

Defining Spaces

Project:
248 UNLEY ROAD
UNLEY

Client:
JOEL WILKINSON
CITIFY GROUP
PO BOX 576 WELLAND SA 5007

Drawing:
LEVEL 6
LANDSCAPE PLAN

Scale: 1:50@ A1
Drawn: KE
Checked: SK
Date: 12/07/2018
Dwg no: LS.007.18.006
Sheet: 6 of 8
Rev: B

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Landscape Construction Services Pty
Builders Licence: BLD175870 / ABN: 88 102 505 180

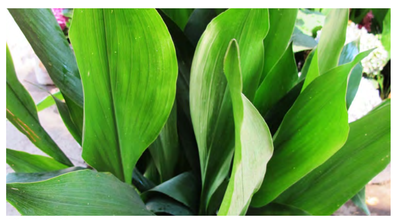
EASTERN ELEVATION (UNLEY ROAD)

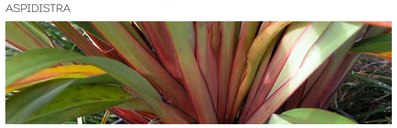
SCALE 1:100 AT A1

PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x Spread)
LOW/ MEDIUM SHRUBS + STRAPPYS				
Ag	Anigozanthos 'Gold Velvet'	Kangaroo Paw	140mm	600mm x 500mm
Aa	Aspidistra	Cast Iron Plant	140mm	900mm x 600mm
Bj	Buxus japonica	Japanese Box	140mm	600mm x 600mm
Dc	Dianella carulea	Silver Streak	140mm	500mm x 900mm
Dt	Dianella tasmanica 'Tas red'	Flax Lily	140mm	500mm x 500mm
Sa	Sedum 'Autumn Joy'	Autumn Joy	140mm	600mm x 600mm
Cc	Chlorophytum comosum variegatum	Spider Plant	140mm	600mm x 300mm
Dm	Dieffenbachia maculata	Tropical Tiki	140mm	1.5mm x 600mm
CLIMBER				
Hh	Hedera helix	Common Ivy	140mm	20m x 15m
Fp	Ficus pumila	Creeping Fig	140mm	4m x 4m (CAN VARY)
Vv	Vitis vinifera	Grape Vine	140mm	15m x 5m
TREES				
Jm	Jacaranda mimosifolia	Jacaranda	45L	10 x 8m
La	Lagerstromia indica 'Sioux'	Crepe Myrtle	45L	4.5m x 3m
FEATURE PLANT				
Px	Philodendron Xanadu (Dwarf)	Xanadu	140mm	750mm x 750mm
Re	Rhapis excelsa	Lady palm	45L	3m x 900mm


VITIS VINIFERA


ASPIDISTRA


DIANELLA TASMANICA 'TAS RED'


QUATRO SOUL OVAL SEAT PLANTER


RHAPIS EXCELSA


QUATRO 'PEBBLES'


ZAMIOCULCAS ZAMIIFOLIA

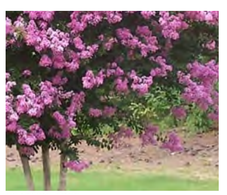

ANIGOZANTHOS 'GOLD VELVET'

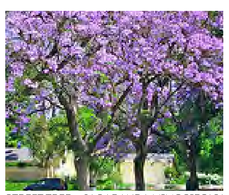

FEATURE CLIMBER
FICUS PUMILA


TIMBER DECKING

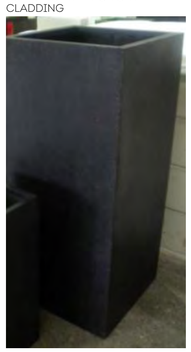

PHILODENDRON XANADU


HEDERA HELIX


FEATURE TREE
LAGERSTROMIA INDICA 'SIOUX'


STREET TREE - JACARANDA MIMOSIFOLIA


BUILDING EXTERIOR SLATE CLADDING


FEATURE POT 1 - TALL SQUARE

ELEMENTS

Revision B: COUNCIL REQUESTED AMENDMENTS

LCS LANDSCAPES
Defining Spaces

Project:
248 UNLEY ROAD
UNLEY

Client:
JOEL WILKINSON
CITIFY GROUP
PO BOX 576 WELLAND SA 5007

Drawing:
EASTERN ELEVATION

Scale: 1:100@ A1
Drawn: KE
Checked: SK
Date: 12/07/2018
Dwg no: LS.007.18.007
Sheet: 7 OF 8
Rev: B

3 Cresswell Road Largs North SA 5016
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Landscape Construction Services Pty.
Builders Licence: BLD175870 / ABN: 88 102 505 180

SOUTHERN ELEVATION (OPEY AVENUE)

SCALE 1:100 AT A1

PLANTING SCHEDULE

CODE	SPECIES	COMMON NAME	POT SIZE	INDICATIVE SIZE (Height x Spread)
LOW/ MEDIUM SHRUBS + STRAPPYS				
Ag	Anigozanthos 'Gold Velvet'	Kangaroo Paw	140mm	600mm x 500mm
Aa	Aspidistra	Cast Iron Plant	140mm	900mm x 600mm
Dc	Dianella caerulea 'Silver Streak'	Silver Streak	140mm	500mm x 900mm
Dt	Dianella tasmanica 'Tas red'	Flax Lily	140mm	500mm x 500mm
Nm	Nandina Domestica 'Moonbay'	Heavenly Bamboo	140mm	600mmx 700mm
Sa	Sedum 'Autumn Joy'	Autumn Joy	140mm	600mm x 600mm
Ws	Westringia fruticosa 'Smokie'	Coastal Rosemary	140mm	500mm x 900mm
Vd	Viburnum 'Dense Fence'	Dense Fence	140mm	1.5 x 1m
CLIMBER				
Fp	Ficus pumila	Creeping Fig	140mm	4m x 4m (CAN VARY)
Pt	Parthenocissus tricuspidata	Boston Ivy	140mm	2m x 2m
Vv	Vitis vinifera	Grape Vine	140mm	15m x 5m
TREES				
Cc	Cercis canadensis 'Forest Pansy'	Purple leafed eastern bud	45L	5m x 5m
Jm	Jacaranda mimosifolia	Jacaranda	45L	10 x 8m
La	Lagerstromia indica 'Sioux'	Crepe Myrtle	45L	4.5m x 3m
Pc	Prunus cerasifera	Crimson Spire	45L	6m x 2m
FEATURE PLANT				
Px	Philodendron Xanadu (Dwarf)	Xanadu	140mm	750mm x 750mm
Re	Rhapis excelsa	Lady palm	45L	3m x 900mm

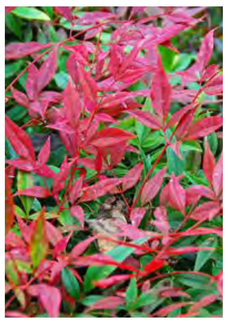
ELEMENTS


VITIS VINIFERA


RED BRICK CLADDING


SEDUM 'AUTUMN JOY'


ASPIDISTRA


NANDINA DOMESTICA 'MOONBAY'


PRUNUS CERASIFERA

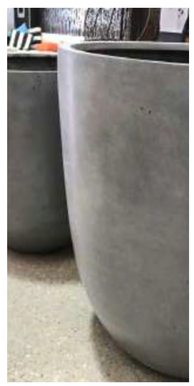

WESTRINGIA FRUTICOSA 'SMOKIE'


FEATURE SCREEN SURROUNDING SPA

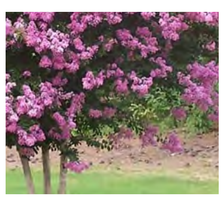

CERCIS CANADENSIS

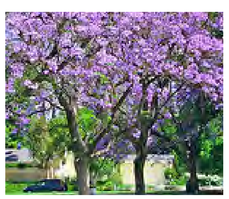

S/STEEL TRELLIS WIRE


DIANELLA CAERULEA

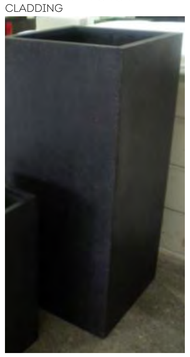

FEATURE POT 2 - VENICE PLANTER


ZAMIA FURFURACEA


FEATURE TREE
LAGERSTROMIA INDICA 'SIOUX'


STREET TREE - JACARANDA MIMOSIFOLIA


BUILDING EXTERIOR SLATE CLADDING


FEATURE POT 1 - TALL SQUARE

Revision B: COUNCIL REQUESTED AMENDMENTS

LCS LANDSCAPES
Defining Spaces

Project:
248 UNLEY ROAD
UNLEY

Client:
JOEL WILKINSON
CITIFY GROUP
PO BOX 576 WELLAND SA 5007

Drawing:
SOUTHERN ELEVATION

Scale: 1:100@ A1
Drawn: KE
Checked: SK
Date: 12/07/2018
Dwg no: LS.007.18.008
Sheet: 8 OF 8
Rev: B

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www.lcslandscapes.com.au

Landscape Construction Services Pty
Builders Licence: BLD175870 / ABN: 88 102 505 180

HYDE PARK PLACE

LUXURY RESIDENCES

REFERRAL RESPONSES

DESIGN REPORT


CITIFY
Jewellery
Jewellery
HYDE PARK PLACE
Coffee

248 UNLEY ROAD, HYDE PARK

REVISION “PA2” SUMMARY

GOVERNMENT ARCHITECT (ODASA)

1. Review of Opey Avenue (south) elevation.
2. External finishes clarified.
3. Studio apartments light and amenity.
4. Apt TYPE E - Level One - updated layout.
5. Apt TYPE F - updated layout.
6. Air conditioners - all integrated.
7. Pool and sun deck - further information.
8. Common driveway between townhouses.
9. Central atrium.

UNLEY COUNCIL

10. Podium facade reviewed
11. Opey Avenue setback reviewed
12. Townhouses storage added
13. Landscaping drawings reviewed
14. Opey Avenue driveway width reviewed
15. Overlooking mitigation reviewed
16. Visitor car parking and disabled parking increased
17. Residential car parking requirement reduced (see CIRQA’s traffic response)

COMMISSIONER OF HIGHWAYS (DPTI)

18. Refer to CIRQA letter addressing various queries and concerns around traffic and car parking.
19. Plan showing connection through to northern site.

Collaboration

The above referrals, informal commentary and ideas have resulted in further improvements and increased amenity to the development.

We thank you for your collaboration and appreciate the time and effort involved in preparing your responses.

GEMMA | LEA DESIGN STUDIO

CITIFY

GOVERNMENT ARCHITECT (ODASA)

PA2.1. REVIEW OF OPEY AVENUE ELEVATION

CONCERN:

"The architectural expression for the built form above the podium is characterised by a series of light coloured rectangular projecting frames articulated by the darker coloured recesses in between. I support the general intent to address the scale of the building by providing a break down in built form, and I am of the view that the articulation on the east and west elevations successfully mitigates the visual bulk. However I am yet to be convinced by the Opey Avenue elevation that includes less physical and visual articulation. My concern for the southern elevation and its lack of breakdown in scale is further emphasised by the narrowness of Opey Avenue and the established small scale residential character of the street. **I recommend review of the Opey Avenue facade expression, with the view to mitigate visual impact of the building scale**, informed by the fine grain character of side streets."

RESPONSE

ODASA mention the west and east elevations successfully mitigates the visual bulk as there is a breakdown in form with the darker recesses between the light projections.

Therefore we have reviewed the southern elevation using this same principle to increase the articulation, adding additional angled colunns and dark set back recesses, softening the visual impact of the building scale along Opey Avenue.

BEFORE

AFTER

GOVERNMENT ARCHITECT (ODASA)

PA2.2. EXTERNAL FINISHES CLARIFIED

CONCERNS

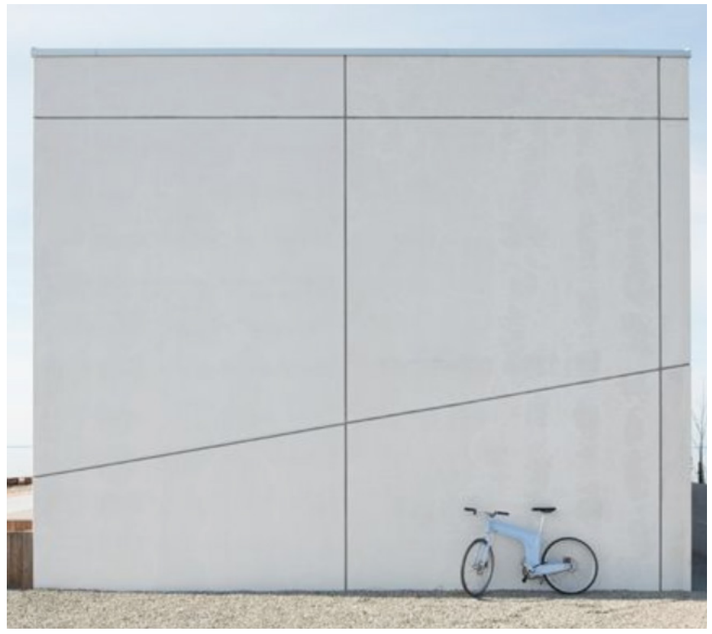
The submitted documentation does not specify the finish for the concrete walls above the mixed-use building podium. Generally I do not support the use of painted and/or applied finishes for buildings of this scale, as they present challenges for durability, longevity and ease of maintenance. I request confirmation of concrete finishes with the view to provide a high quality material commensurate with the project ambition, with finish and colour integral to its fabric.

RESPONSE

The concrete walls will not have an applied or painted finish.

Depending on the selection by client for exact colour and finish, the concrete will employ use of white cement for the light sections, combined with either a pigmented or stained finish, both of which are integral to the concrete and require no applied finish. The dark sections will be pigmented or stained as well.

Prior to SCAP panel meeting we can provide a sample board of external materials to ODASA.



GOVERNMENT ARCHITECT (ODASA)

PA2.3. STUDIO APARTMENTS

CONCERNS

“I am concerned about the depth of the open plan space of the studio apartments (TypeH), where the rear of the dining area is approximately 9.5m from the only window and the kitchen area has no access to natural light.”

RESPONSE

The size of the opening (sliding doors) from these apartments is 8.5m$_2$. This, according to the BCA, provides sufficient light for 85m$_2$. The habitable areas of the studios (excluding the galley kitchen) is less than 30m$_2$.

Whilst we acknowledge that Provision 54 of Adelaide City Council Development plan specifies a maximum depth of 8m from the light and ventilation source to habitable areas, the living and bedroom space is a maximum of 6.2m from this source and, on balance, when trying to provide an affordable apartment option, and also considering the large size of the opening, is not a large departure.

To demonstrate, we have prepared a 360 degree render, which can be accessed via this link:

http://modelfarm.com.au/clients/citify/colour-07.html

Navigate to Apt 105: Studio, and then click Scheme 1: Soho, you can pan around the studio space to get a feel for the amenity provided.

GOVERNMENT ARCHITECT (ODASA)

PA2.4. APT TYPE E APARTMENTS ON LEVEL 1

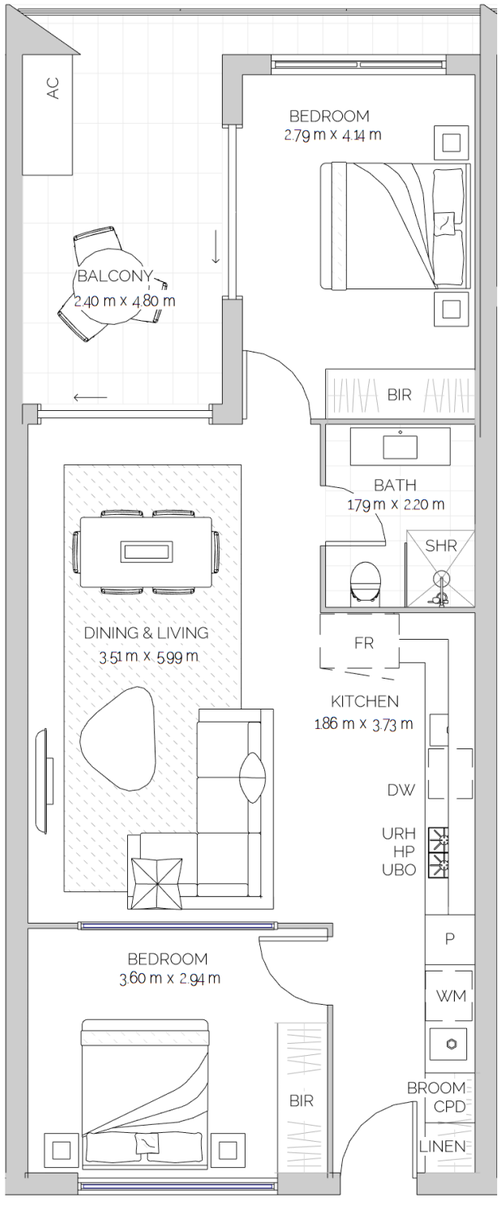
CONCERNS

"On the first floor of the mixed use building ... I also have concerns regarding the compromised amenity of the inboard bedroom in the two bedroom apartments (Type E)."

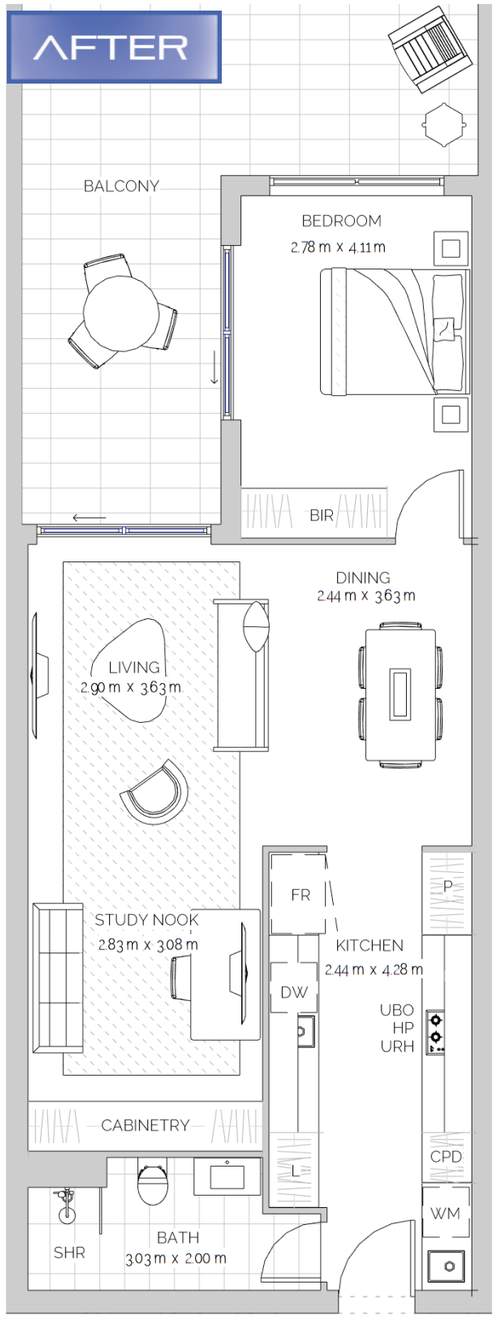
RESPONSE

Floor plan type E has been reviewed for level one. It is agreed that the inboard bedroom window was compromised and therefore it has been removed and the floor plan has been changed to suit. This is now a one bedroom apartment with a study area, totalling a depth of 6.7m from the sliding doors.

BEFORE



AFTER



GOVERNMENT ARCHITECT (ODASA)

PA2.5. APT TYPE F APARTMENTS

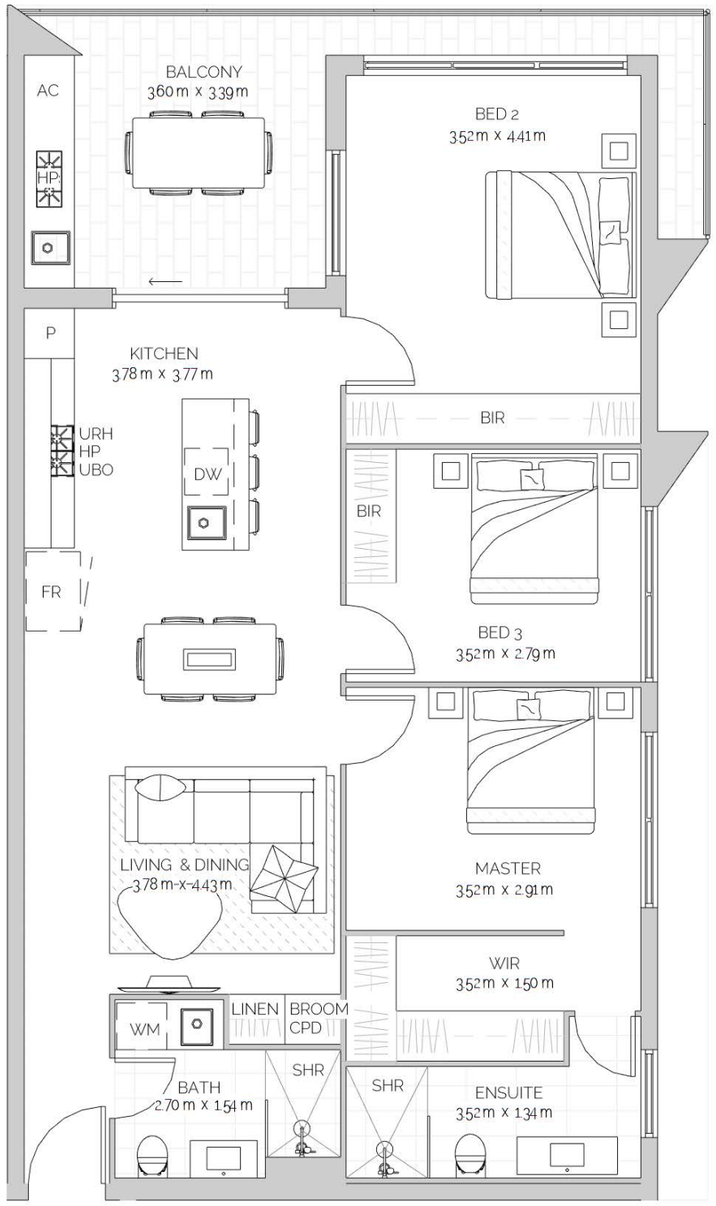
CONCERNS

"I am also concerned about the depth of the open plan living/dining/kitchen space for the Type F apartments. I recommend review of the apartment lay-outs to ensure a high level of residential amenity for all habitable rooms"

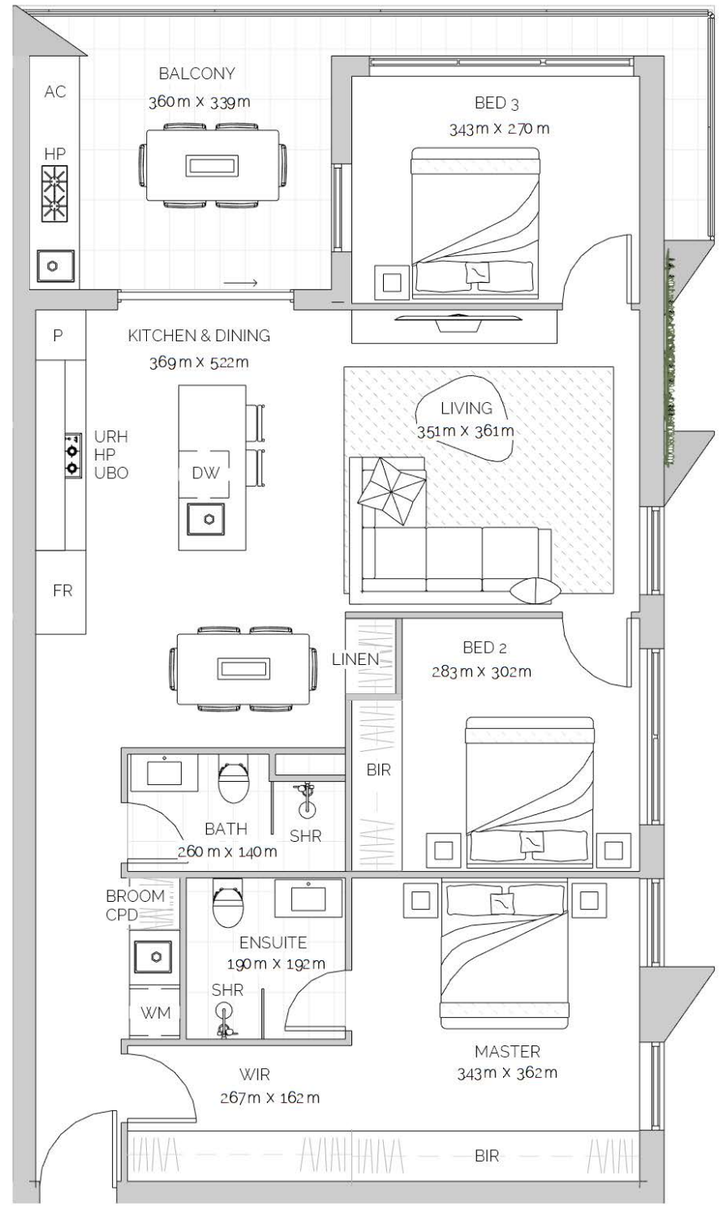
RESPONSE

The previous design had a kitchen, dining and living length of 8.2m - 200mm over the Provision 54 of Adelaide City Council Development plan of 8m. In any case, we have redesigned this apartment to reduce that length and provide a better layout.

BEFORE



AFTER



GOVERNMENT ARCHITECT (ODASA)

PA2.6. AIR-CONDITIONING UNITS

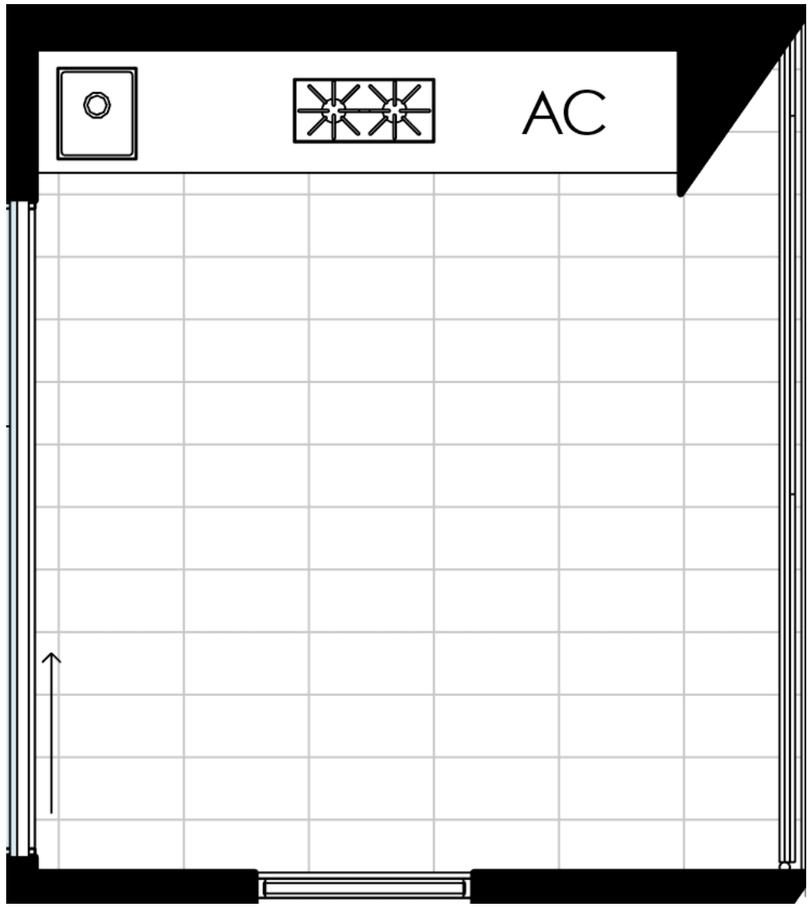
CONCERNS:

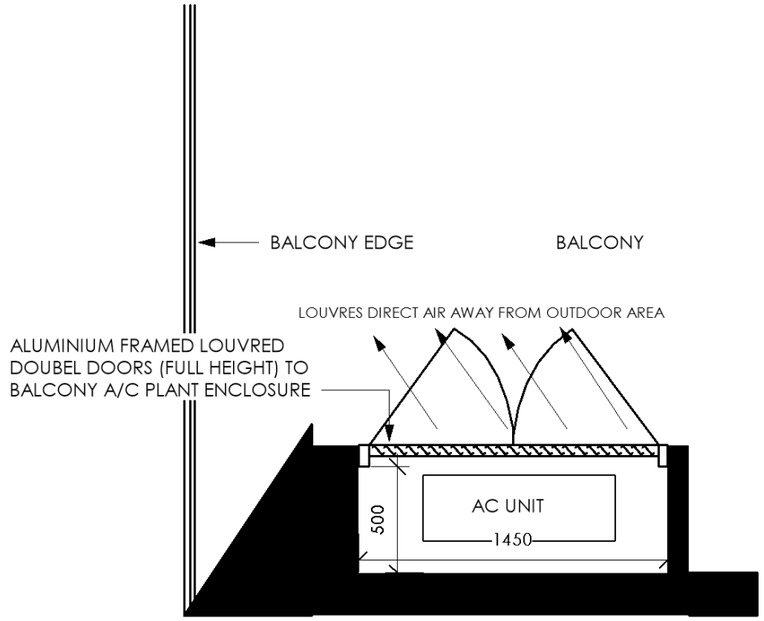
"I support the proposed arrangement [of air-conditioning condenser units on balconies] on balance, as the majority of the condenser units are located within the integrated outdoor furniture. I recommend development of an integrated screening solution for the stand-alone condensers, to ensure environment and acoustic amenity of all balconies"

RESPONSE:

The intention is to have all air-conditioning condenser units integrated into the outdoor furniture, except for the studio apartments, which will have their condensers in a service area on level two, and the level six penthouses which will have their condensers on the roof.

All applicable balconies should now note clearly this arrangement on plans.





GOVERNMENT ARCHITECT (ODASA)

PA2.7. POOL DECK ARRANGEMENT

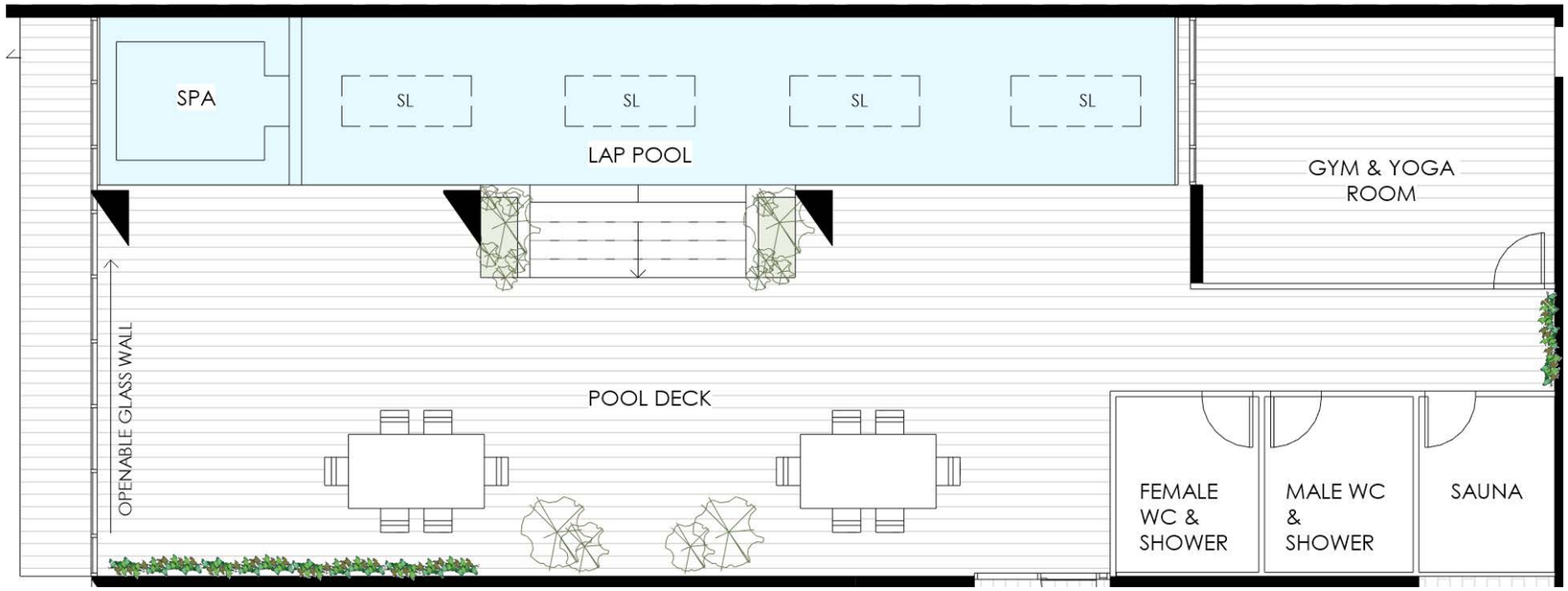
CONCERNS:

"I support the provision of the communal spaces at the top of the mixed-use building podium, including a pool, barbeque area and games room, However I am concerned about the location of the pool and the associated deck area along the northern boundary. In my opinion, the amenity and usability of these spaces could be compromised, due to the proximity to the approved seven storey development on the adjacent land. The adjacent development includes south-facing balconies that are likely to pose overlooking issues to the pool area. The direct solar access to the pool and deck area is also likely to be severely limited by the adjoining building to the north, I recommend review of the communal space strategy to ensure optimum user amenity, including solar access."

RESPONSES:

We have reviewed these comments and concerns. As the approved neighbouring dwelling has little in the way of screening to their balconies for privacy and overlooking, this could certainly affect the amenity for the pool area. We looked at moving the pool to the south-western corner, but this would not have better solar access than the current arrangement. Similarly with the south-eastern corner, this not only gains less access to sun but also reduces amenity due to noise of Unley Road. The north-eastern corner is the least desirable as a combination of all the above is the case - lack of solar access, noise pollution from Unley Road, and overlooking from the northern approved development.

As such, we have opted keep the pool in its current location but change the pool and communal area to be an inside room with a solid roof with skylights. The western wall of the deck will be glass to provide plenty of natural light and the option for opening the glass on warmer days to allow natural ventilation.



GOVERNMENT ARCHITECT (ODASA)

PA2.8. COMMON DRIVEWAY TO TOWNHOUSES

CONCERNS:

"While I have concerns regarding the quality of the laneway between the two clusters of townhouses, I support the proposed arrangement on balance."

RESPONSES:

Whilst there is support for the proposed arrangement of townhouses, we see that there is opportunity to improve the middle laneway to the townhouses. We have proposed the below solution as part of the landscaping plan for this area, to improve amenity and quality.

BEFORE

AFTER

GOVERNMENT ARCHITECT (ODASA)

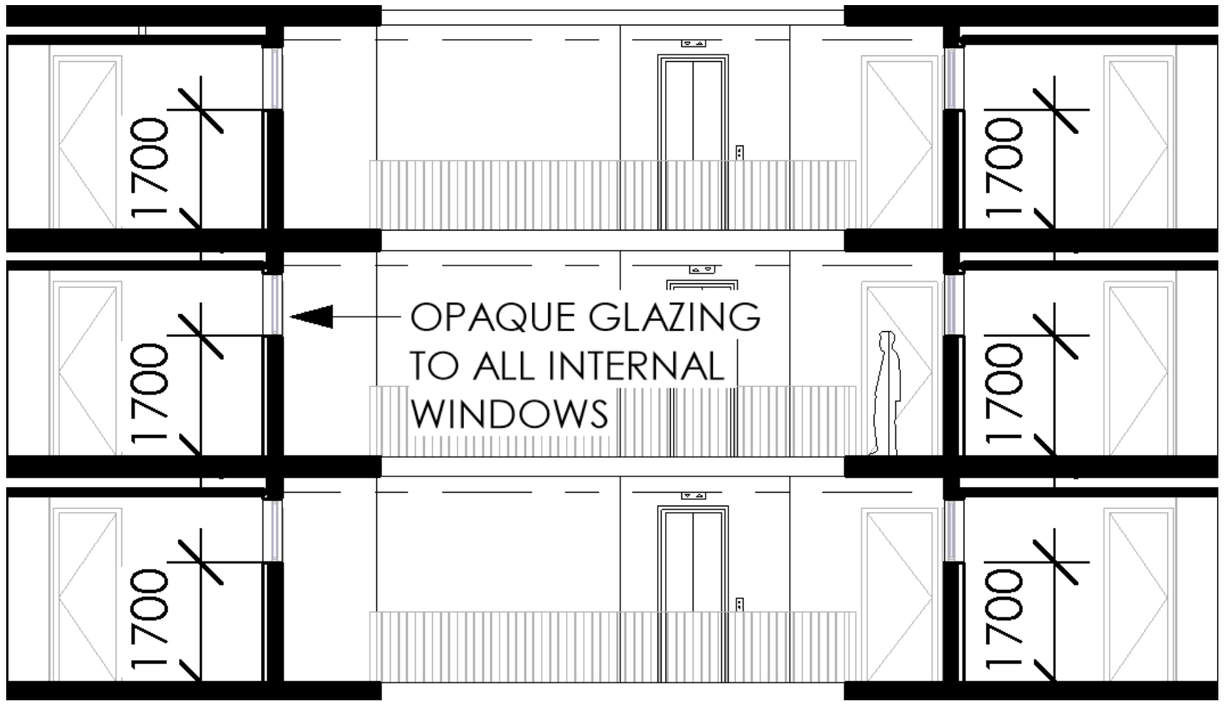
PA2.9. CENTRAL LIGHT ATRIUM

CONCERNS:

"While the apartments are convincing in terms of size and functional layouts, I do not support the provision of bedroom windows to communal circulation spaces for natural light and ventilation. I am of the view that this arrangement compromises acoustic privacy and amenity of the apartments."

RESPONSES:

Currently the window sills for bedroom windows to the communal circulation areas are opaque glazing units at 1500mm above floor level. We propose to raise the sills to 1700mm above floor level, whist retaining the same large window size (900 high x 2400 wide, which is 2.16m$_2$). This ensures that the windows will be above eye level and provides suitable visual privacy to the bedrooms. With regard to acoustic privacy, the glazing will be double glazed and to the same requirements that glazing to Unley Road will be, which is arguably a more frequent and louder source of noise.



UNLEY COUNCIL

PA2.10. PODIUM FACADE REVIEWED

CONCERNS:

"Appreciate treatment is contemporary and simple but more articulation, colour and detailing could be provided to the podium parapet facade with fenestration relief to its flat proile, projecting column and/or pediment features and emphasised deeper cantilever canopies to better complement the desired and existing intimate and textured streetscape pattern."

RESPONSE:

- Removed sliding windows to balconies to add depth and articulation to podium, and to complement the neighbouring approved development which takes on a similar approach
- Set back the entrance lobby to provide relief to the podium's flat profile
- Added a curve to the corner of the podium on the south-east and south-west to soften the corners of the podium, mirroring the curve on Hart Avenue/Unley Road intersection of neighbouring approved development.
- Increased depth of canopies from 1.8m to 2.1m (ensuring set back of minimum of 600mm from edge of footpath)
- Added a steel canopy/open pergola with columns on southern footpath, with proposed planting and climbers overhead to deepen the canopies and complement the intimate streetscape pattern.

UNLEY COUNCIL

PA2.11. OPEY AVENUE SETBACK REVIEWED

CONCERNS:

"Along the secondary street frontage of Opey Avenue a 2.0m setback from 20.0 metres from the Unley Road alignment should be provided, whereas the 0.0 metres extends for some 36 metres. A setback would further soften the Opey Avenue built form"

RESPONSE:

A great deal of time was spent reviewing, revising and looking at this frontage in terms of setback. Shown on bottom left corner is an example of the built form with a 20m setback. The result to the built form is one of imbalance and presents a disjointed approach to the podium.

The metro shopping centre located directly south also presents to the boundary for its entirety - 35 plus metres. It should be noted that the two storey townhouses are only required to have a 2m setback but are setback a further 50% at 3m for 30 metres of the site. A merit-based qualitative approach with the revised podium, it frames the building and balances it better than a strict adoption to a quantitative approach.

BEFORE

SUBMITTED TO COUNCIL:

REVIEWED WITH SET BACK AT 20m

AFTER

UPDATED OPEY AVENUE FRONTAGE

UNLEY COUNCIL

PA2.12. TOWNHOUSE STORAGE ADDED

CONCERNS:

“The townhouses lack necessary and adequate storage (in addition to bin and vehicle areas). Garages have insufficient internal dimensions - double garages min 5.8 x 6.0 metres - some appear as low as 5.5 wide and/or 5..5 deep. This could readily lead to garages becoming used for storage and/or unsuitable for parking and consequently compounding on-street parking demands.”

RESPONSE:

The double garages comply with AS 2890.1 - Parking facilities - Off-street car parking.

We are in agreement with Unley Council that it would be beneficial for storage area in the garages and have therefore proposed over bonnet/wall mounted storage areas, each providing 2.7m_3 of space.

UNLEY COUNCIL

PA2.13. LANDSCAPING DRAWINGS REVIEWED [REFER UPDATED LCS LANDSCAPED DOCUMENTATION]

CONCERNS:

"While 216m$_2$ (7.6%) deep soil is nominated as available, some is paved and much is not planted to canopy trees as required. The actual canopy cover requires closer examination. More trees should be located along the rear western boundary for softening and screening ... and within courtyards to north and south to enhance canopy cover, microclimate and amenity"

"Driveway off Opey Avenue ... and whole access/service area afforded more softening by further planting and/or vertical trellis to walls along the side of northern townhouse group..."

"Plant species needs review to avoid fruit and deciduous leaves drop plus suitability for circumstance...and evidence of how all are to be sustained in the long term"

Original

Updated

RESPONSES (from LCS Landscapes):

1. Eastern walls to Townhouses

We have added to the other eastern townhouse wall. On this wall, a good option for a climber would be Parthenocissus tricuspidata (Boston Ivy). This has beautiful foliage, changes colour throughout the season and although has leaf drop, the eastern wall of the townhouses area is easily maintainable- the branching and texture of the dormant climber is also a feature in itself.

This plant has a strong connection with adjacent suburbs.

2. Climber to long narrow portions of both South & East elevations

We have changed this species to Ficus pumila (Creeping fig) This will not require any mechanical fixing and is ever green. There will however be some maintenance required (as with anything) with keeping the climber within the narrow façade. The planter on Level 2 will need to be large and irrigated.

3. Pedestrian path along western boundary

This path has been staggered to allow for more trees.

4. Structure over southern area

We have suggested Vitis vinifera (Ornamental Grape) for great summer shade, while letting as much light as possible through in winter. Extremely hardy at street level, it ties in well with other developments and shopping precincts in the area. As any, climber will require some formative pruning and training.

Consider fixing proprietary cleats and s/steel cables to structure to attach climber as it grows. Have proposed raised planters on street verge approx. 700(h) x 600 (d) max to fit between steel structure posts.

5. Climbers between eastern townhouses.

This could work really well with the opportunities of ground planting. Again, we would suggest Vitis vinifera (Ornamental Grape) with s/steel cables for similar reasons as above. This will create an excellent dappled shade environment over the car park area. We wouldn't consider using an evergreen climber for this area.

6. More trees have been added along western boundary and at least 2x trees in each townhouse dwelling courtyard to enhance canopy cover and neighbor screening.

UNLEY COUNCIL

PA2.14. OPEY AVENUE DRIVEWAY WIDTH REVIEWED

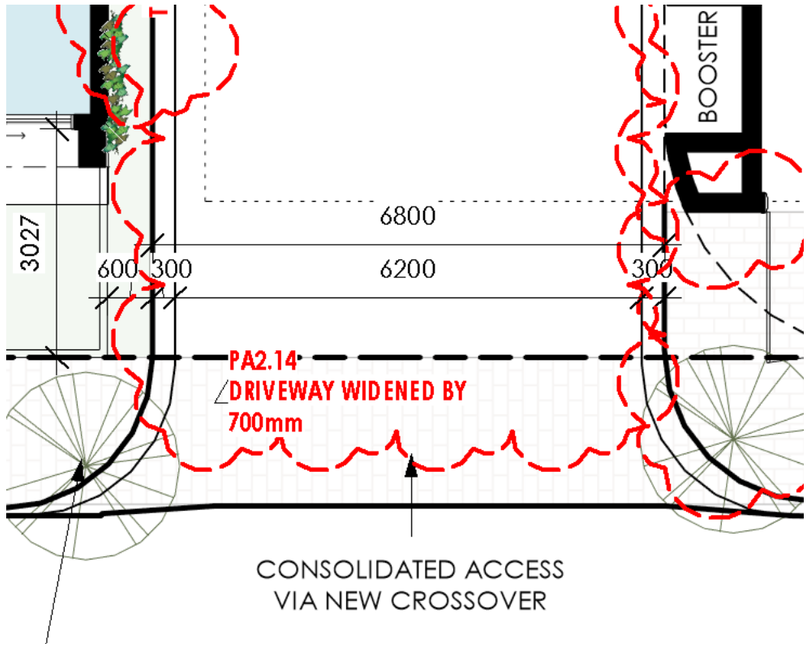
CONCERNS:

"Driveway off Opey Avenue needs widening from minimum 6.0 metres (minimum from kerb edge to hard wall face) and whole access/service area afforded more softening by further planting and/or vertical trellis to walls along the side of northern townhouse group and all western ground levels/walls of front tower mixed use building"

RESPONSE:

The driveway is 5.5 metres wide plus 300mm each side for kerb for a total of 6.1m. This complies with AS 2890.1. Having said that, we have widened the driveway at the front to 6.2m with 300mm kerbs for a total of 6.8 metres.

With regards to landscaping, an additional vertical trellis has been included to the northern townhouses also.



S/STEEL TRELLIS WIRE

UNLEY COUNCIL

PA2.15. OVERLOOKING MITIGATION REVIEW

CONCERNS:

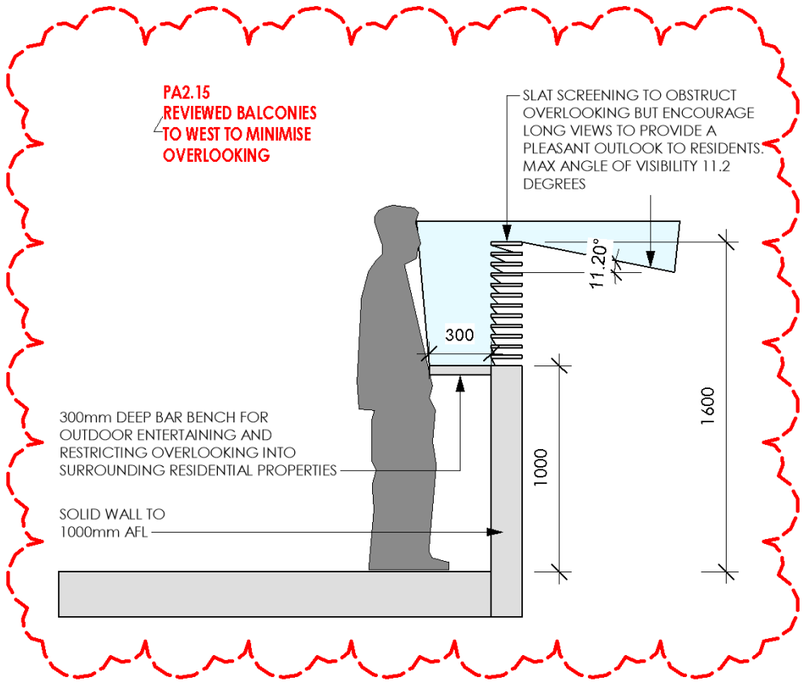
"There is little detailed information of overlooking mitigation and screens. There are some notes about 1.5 metres sills/screens but this is inadequate and below standard of 1.7 metres, unless viewing position physically fixed well back from screen to acheive same effect on downward angle."

RESPONSE:

Southern elevation - no overlooking occurs - refer drone photo looking south

Northern elevation - all northern windows are high level or have louvres to prevent overlooking, as the neighbouring approved development's balconies and windows have no such method or solution for minimising overlooking (246 Unley Road's balustrading is all at 1 metre high.

Western elevation - this elevation has been competely reviewed to accomodate for these concerns regarding overlooking.



UNLEY COUNCIL

PA2.16. VISITOR CAR PARKING & DISABLED CAR PARKING INCREASED

PA2.17. RESIDENTIAL CAR PARKING FACILITIES

CONCERNS:

"There is inadequate provision for visitor car parking....Accordingly, there is a shortage of 6.5 to 7.5 visitor spaces on-site."

"One disabled space is provided at ground level but based on 1 space per 25 spaces there should be a total of 4, ie a further 3 within residents area."

"Provision for resident parking is generally appropriate and in accord with requirements - 59 spaces for 63 apartments."

"While on-street parking adjacent to the site may be improved by 2 or 3 through accessway consolidation, the on-site shortage is compounded by the need to remove all on-street parking on one side of Opey Avenue to accomodate expected vehicle and movements.

RESPONSE:

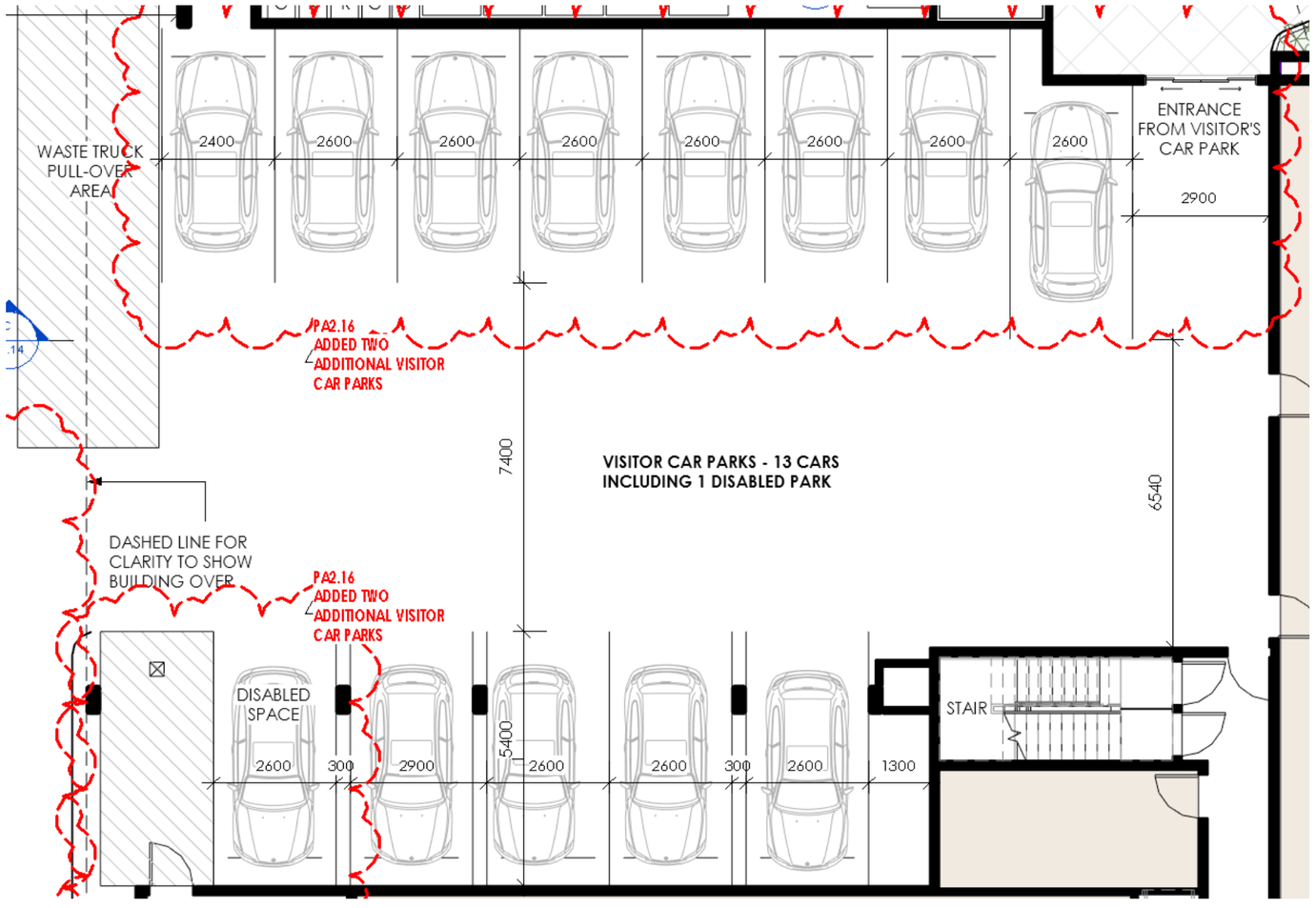
The visitor car parking on the ground floor has been increased by 2 car parks.

Three basement disabled car parks have been added.

Due to a reduction in four apartments and two apartments have been reduced from two-bedrooms to one-bedrooms, there is a residential car parking demand reduction of 4.5 spaces.

Opey Avenue already has a No Stopping sign to the southern side of Opey Avenue, and therefore no shortage occurs.

The addition of 2 or 3 on-street car parks through the consolidation of multi crossovers should be recognised.



COMMISSIONER OF HIGHWAYS (DPTI)

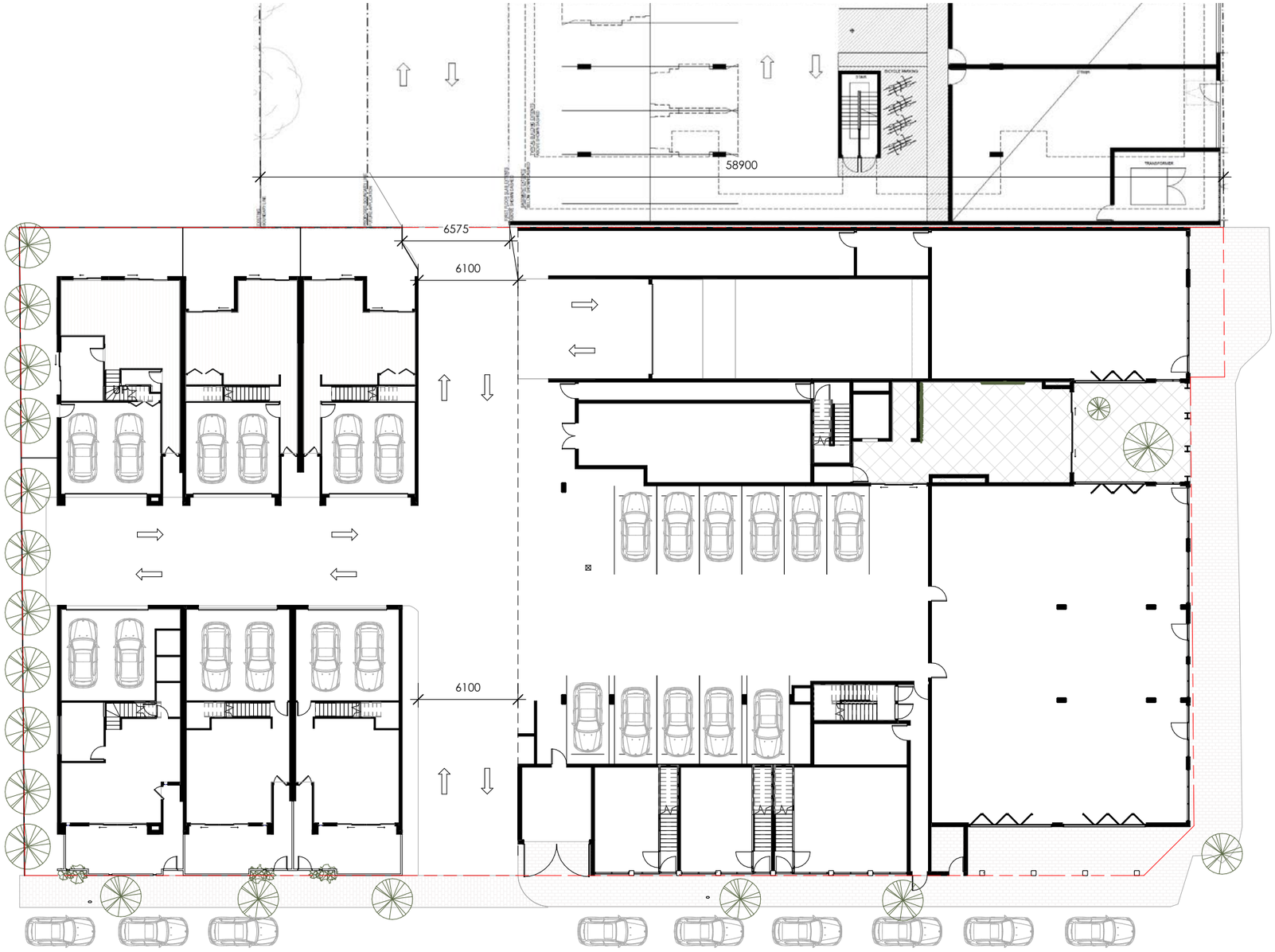
PA2.19. [REFER TO CIRQA RESPONSE]

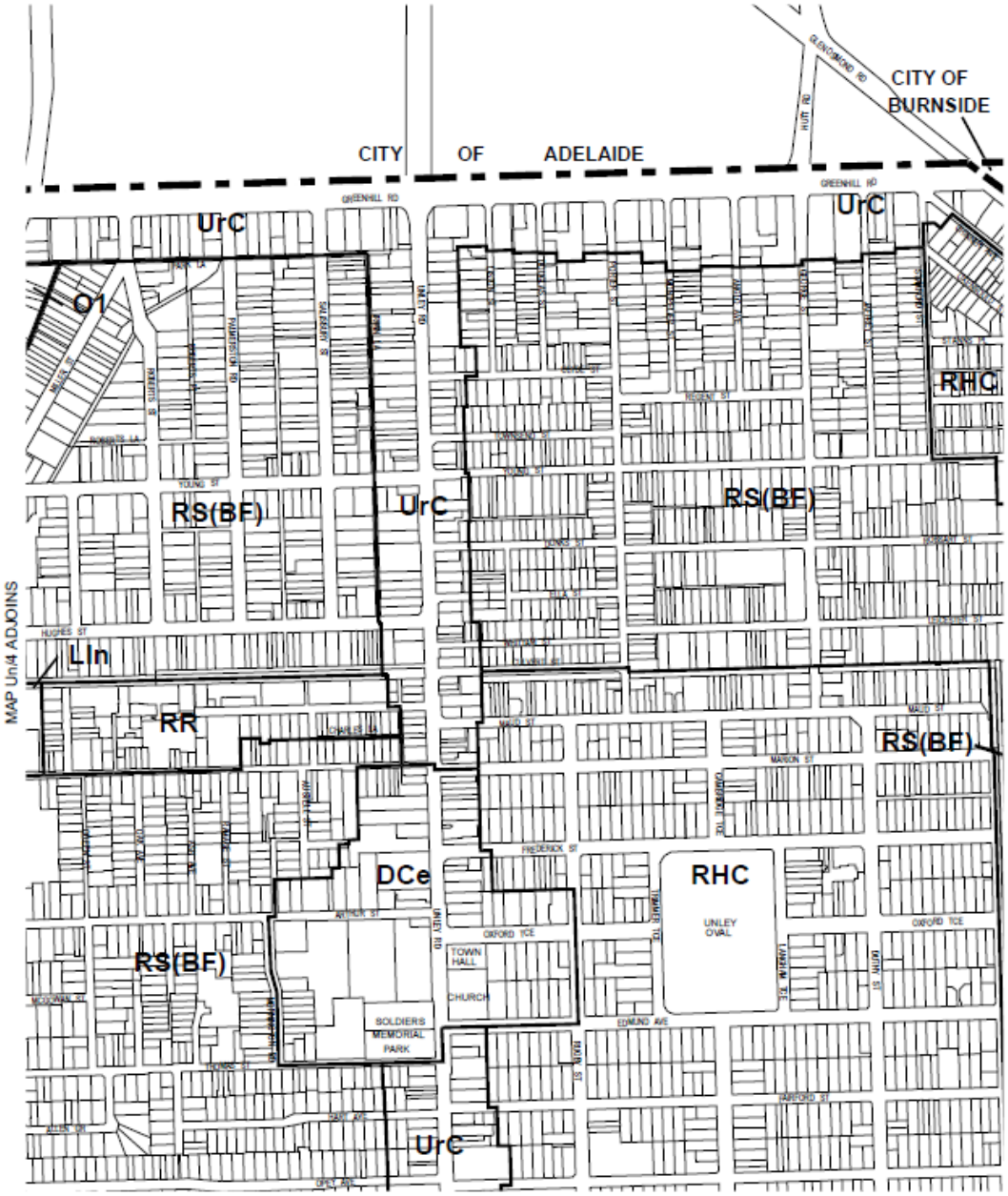
CONNECTION TO 246 UNLEY ROAD

Subject to agreement from developers of 246 Unley Road, this application proposes to establish a connection between Hart Avenue and Opey Avenue.

If agreed and approved, this will be formalised by way of a reciprocal right-of-way which would form a part of the subdivision of the site.

The design of this connection has been approved by CIRQA as being safe and convenient for users.





Note: For Policy Areas See Map Un/14

DCe	District Centre
LIn	Light Industry
O1	Office 1
RHC	Residential Historic Conservation
RR	Residential Regeneration
RS(BF)	Residential Streetscape (Built Form)
UrC	Urban Corridor

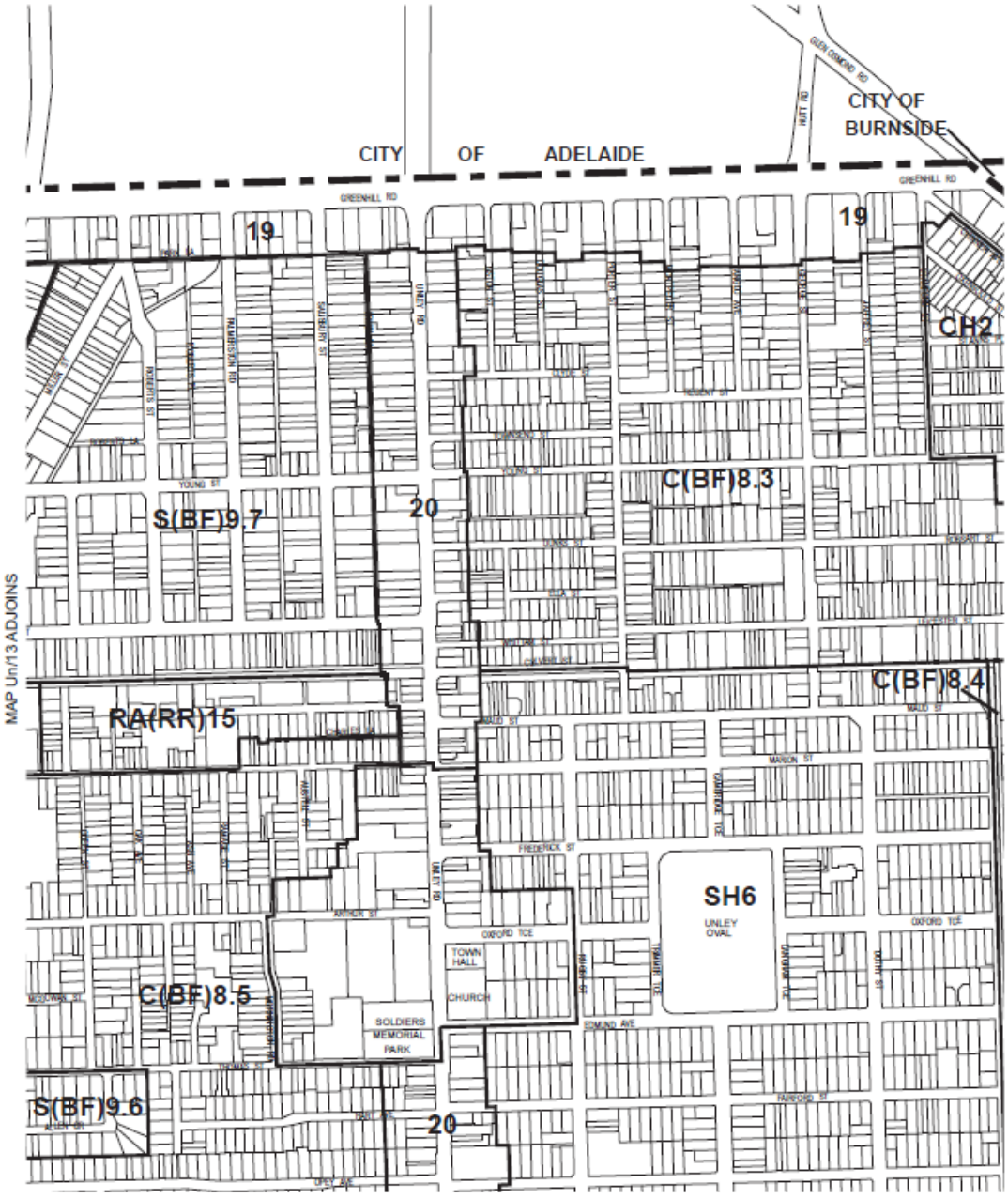
Scale 1:8000

0 500metres

Zone Boundary

Development Plan Boundary

UNLEY (CITY) ZONES MAP Un/5

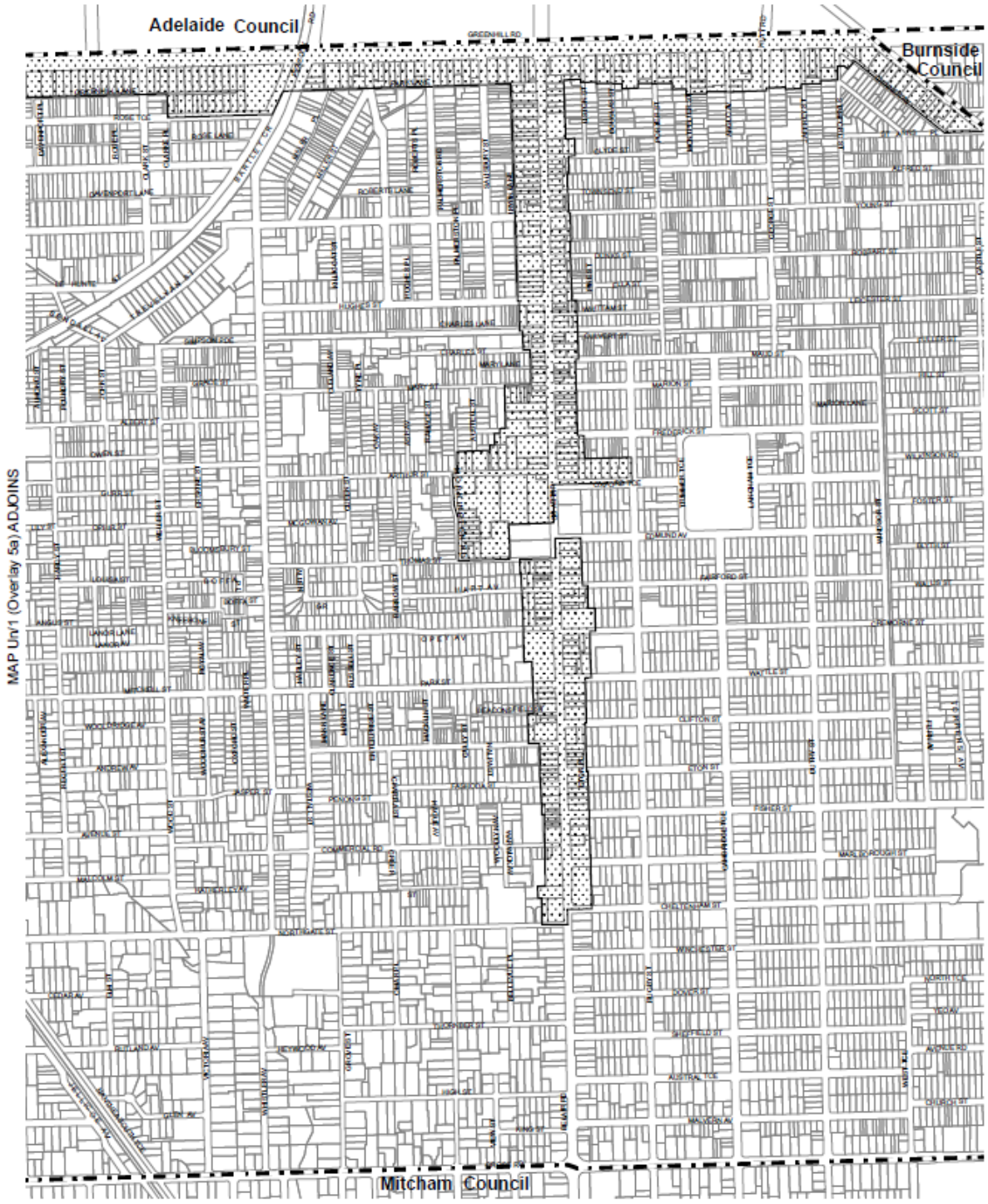


CH2	Policy Area 2 - Compact Historic Parkside St. Ann's Estate
SH6	Policy Area 6 - Spacious Historic Unley and Malvern Trimmer Estate
C(BF)8.3	Policy Area 8 - Compact (Built Form) Precinct 8.3
C(BF)8.4	Policy Area 8 - Compact (Built Form) Precinct 8.4
C(BF)8.5	Policy Area 8 - Compact (Built Form) Precinct 8.5
S(BF)9.6	Policy Area 9 - Spacious (Built Form) Precinct 9.6
S(BF)9.7	Policy Area 9 - Spacious (Built Form) Precinct 9.7
RA(RR)15	Policy Area 15 - Renewal Area
19	Policy Area 19 - Boulevard (Greenhill Road)
20	Policy Area 20 - High Street (Unley Road)
	Policy Area Boundary
	Development Plan Boundary

Scale 1:8000

0 500metres

UNLEY (CITY) POLICY AREAS MAP Un/14



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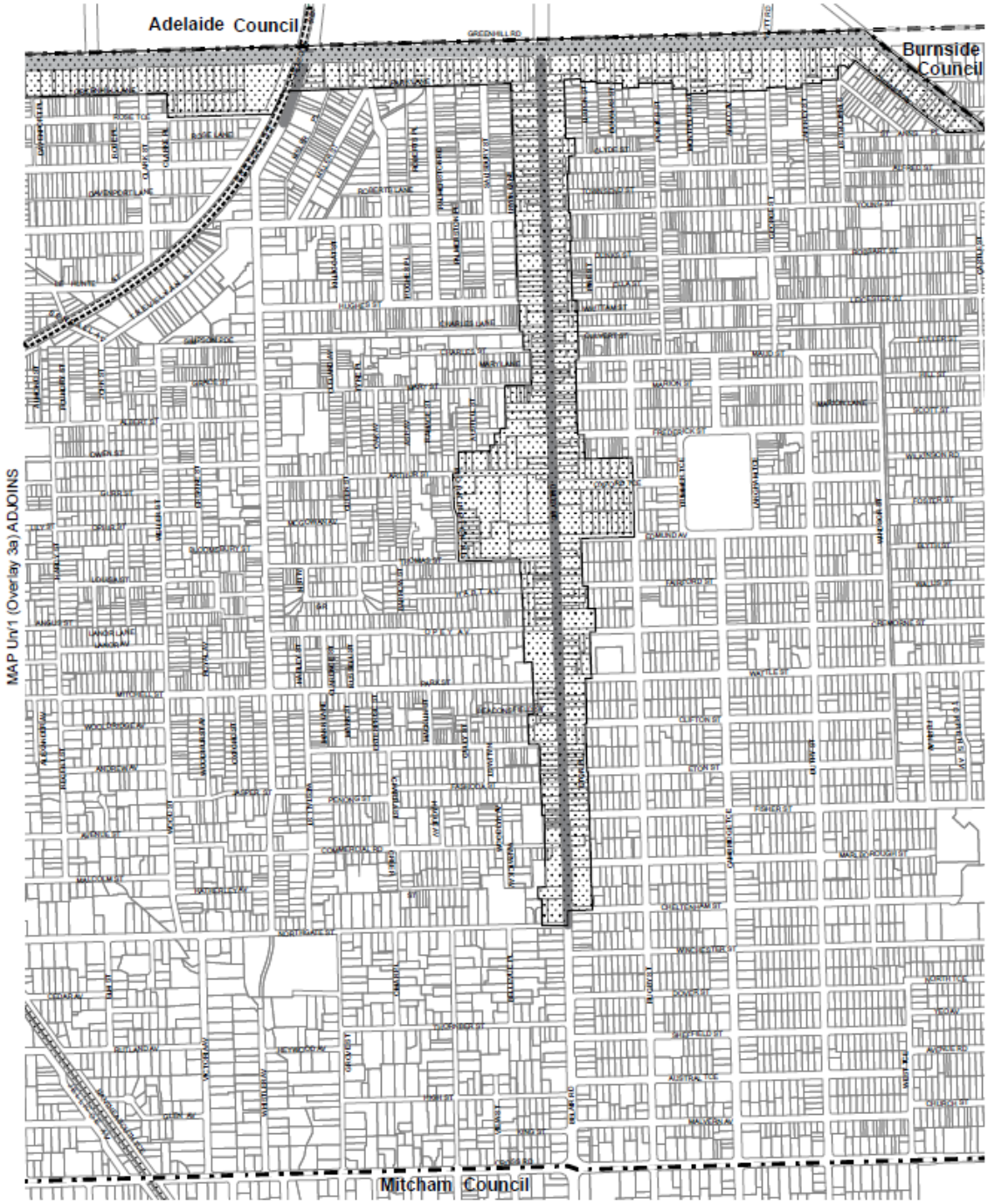
N

Designated Area within which Affordable Housing applies

Development Plan Boundary

UNLEY (CITY)
AFFORDABLE HOUSING
MAP Un/1 (Overlay 5b)

Consolidated - 19 December 2017



N

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Train Corridor

Tram Corridor

Designated Road: Type A road

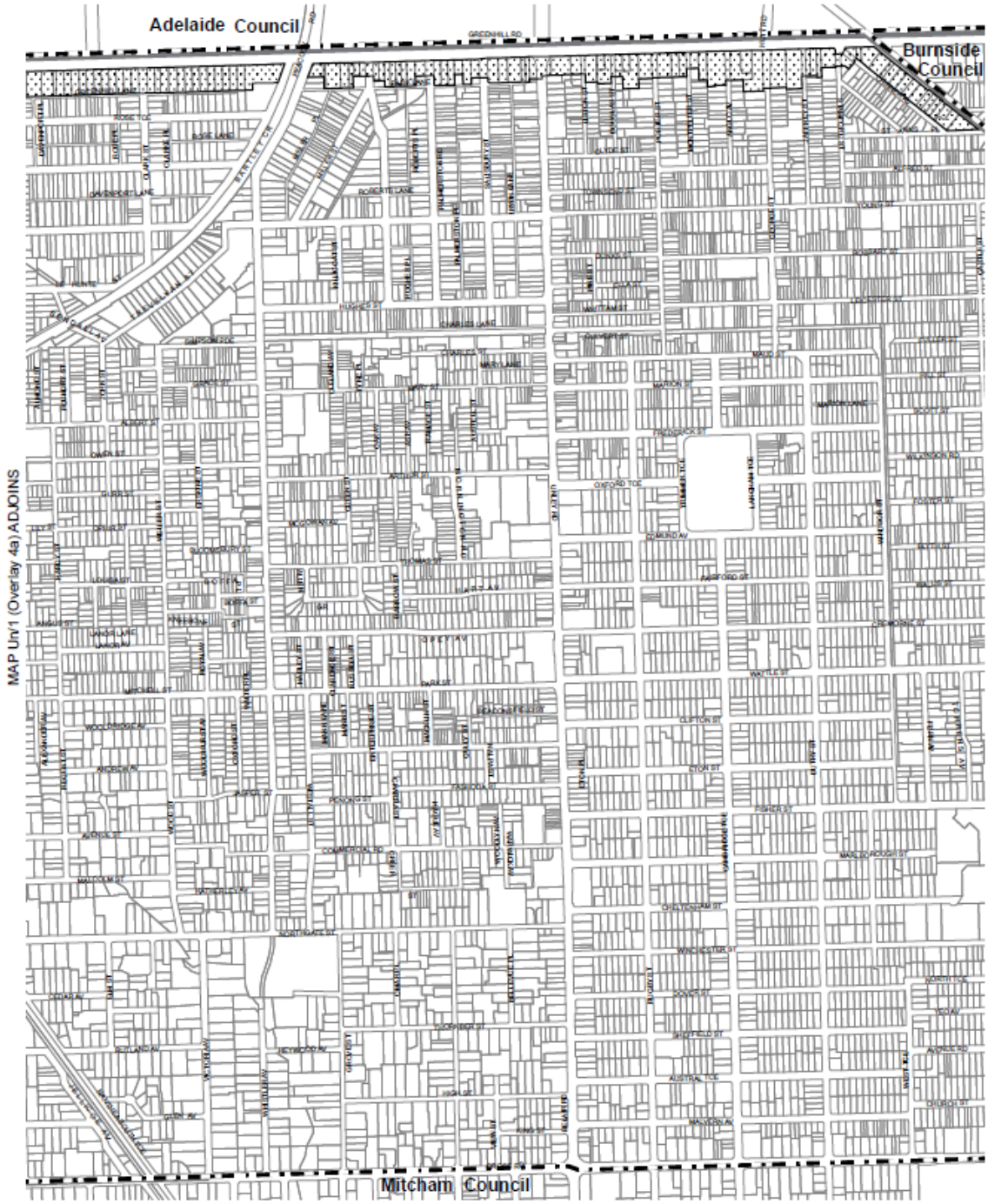
Designated Road: Type B road

Designated Area

Development Plan Boundary

UNLEY (CITY)
NOISE AND AIR EMISSIONS
MAP Un/1 (Overlay 3b)

Consolidated - 16 December 2010



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N

Designated Area

Strategic Roads Network

Development Plan Boundary

UNLEY (CITY)
STRATEGIC TRANSPORT ROUTES
MAP Un/1 (Overlay 4b)

Consolidated - 19 December 2017

- Historic Character Residential
- Streetscape Character Residential
- Higher Intensity Residential
- Other Residential
- Local Neighbourhood and Specialty Goods Centres
- Special Use
- Mixed Use (Medium - High Density)
- Institutional
- Industrial
- Office/Mixed Use
- DCe — District Centre
- Ex — Excluded
- Railway
- Guided Public Transportation Route
- Local Collector Road
- Major Collector Road
- Secondary Arterial Road
- Primary Arterial Road
- Development Plan Boundary

0 km 1 2

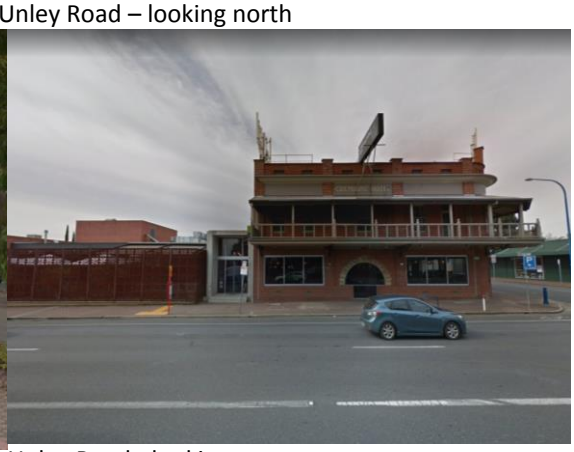
CITY OF UNLEY STRUCTURE PLAN MAP Un/1 (Overlay 1)

Site Photographs

Unley Road – looking west to subject land

Unley Road – looking north

Unley Road – looking south



Unley Road - looking east

Opey Avenue – looking west

Opey Avenue – looking east to Unley Road

Adjoining Residential Dwelling on western boundary

Unley Road – looking northwest at subject site

Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5380/231)
Date/Time	10/04/2017 10:15AM
Customer Reference	
Order ID	20170410002627
Cost	$455.00

REAL PROPERTY ACT, 1886
South Australia

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

Certificate of Title - Volume 5380 Folio 231

Parent Title(s) CT 5177/816

Creating Dealing(s) PS 8126223

Title Issued 25/11/1996 **Edition** 13 **Edition Issued** 24/03/2015

Estate Type

FEE SIMPLE

Registered Proprietor

1684 OPEY AVENUE PTY. LTD. (ACN: 161 696 411)
OF CARE LEVEL 1/162 GREENHILL ROAD PARKSIDE SA 5063

Description of Land

ALLOTMENT 16 DEPOSITED PLAN 736
IN THE AREA NAMED HYDE PARK
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
11908859	MORTGAGE TO BENDIGO & ADELAIDE BANK LTD.
12291586	AGREEMENT UNDER DEVELOPMENT ACT, 1993 PURSUANT TO SECTION 57(1)

Notations

Dealings Affecting Title NIL

Priority Notices NIL

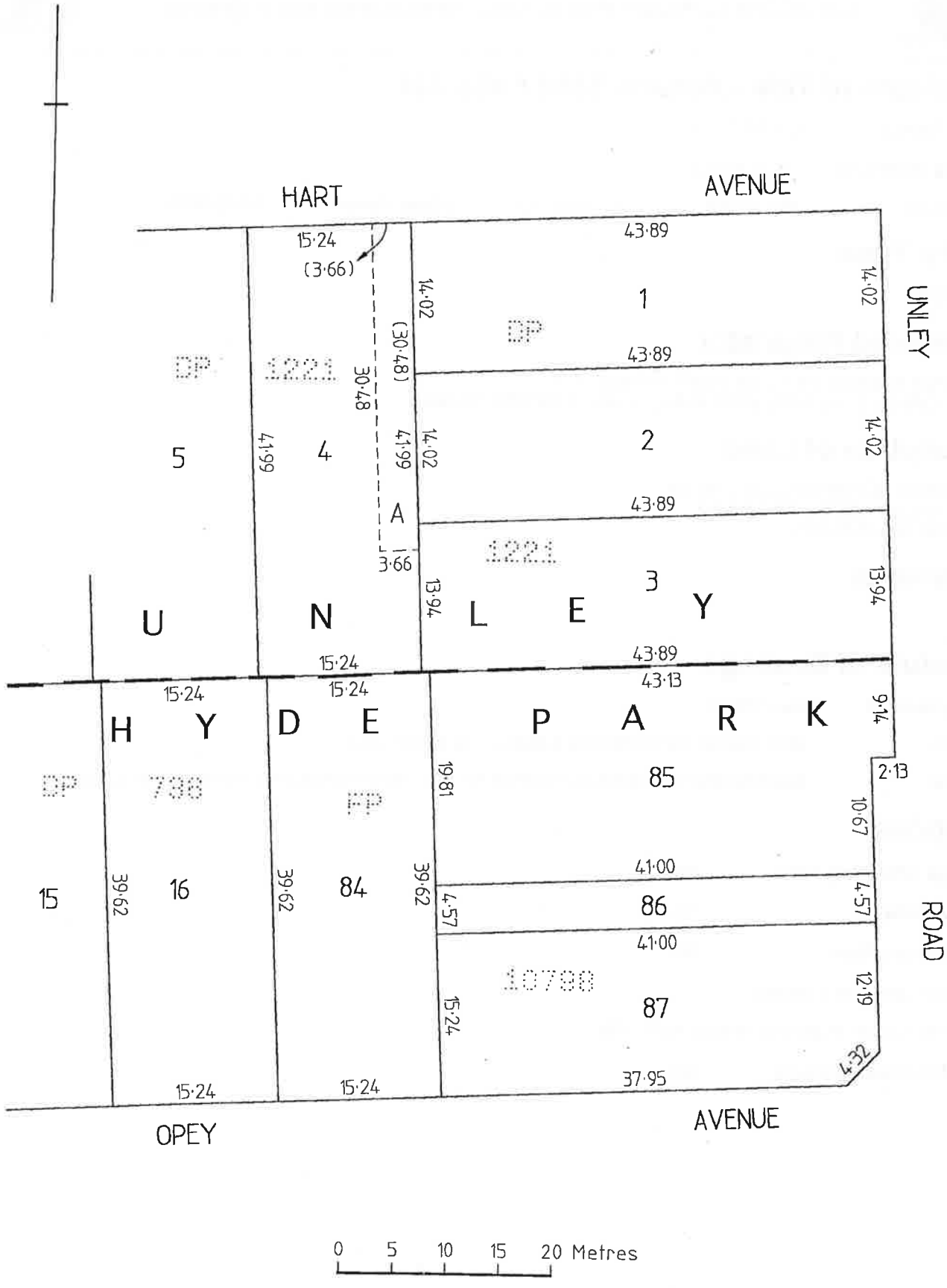
Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G377/1984

Administrative Interests NIL

Product	Register Search (CT 5380/231)
Date/Time	10/04/2017 10:15AM
Customer Reference	
Order ID	20170410002627
Cost	$455.00



Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5380/235)
Date/Time	10/04/2017 10:15AM
Customer Reference	
Order ID	20170410002627
Cost	$455.00

REAL PROPERTY ACT, 1886
South Australia

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

Certificate of Title - Volume 5380 Folio 235

Parent Title(s)	CT 5177/815				
Creating Dealing(s)	PS 8126223				
Title Issued	25/11/1996	**Edition**	13	**Edition Issued**	24/03/2015

Estate Type

FEE SIMPLE

Registered Proprietor

1684 OPEY AVENUE PTY. LTD. (ACN: 161 696 411)
OF CARE LEVEL 1/162 GREENHILL ROAD PARKSIDE SA 5063

Description of Land

ALLOTMENT 84 FILED PLAN 10798
IN THE AREA NAMED HYDE PARK
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
11908859	MORTGAGE TO BENDIGO & ADELAIDE BANK LTD.
12291586	AGREEMENT UNDER DEVELOPMENT ACT, 1993 PURSUANT TO SECTION 57(1)

Notations

Dealings Affecting Title NIL

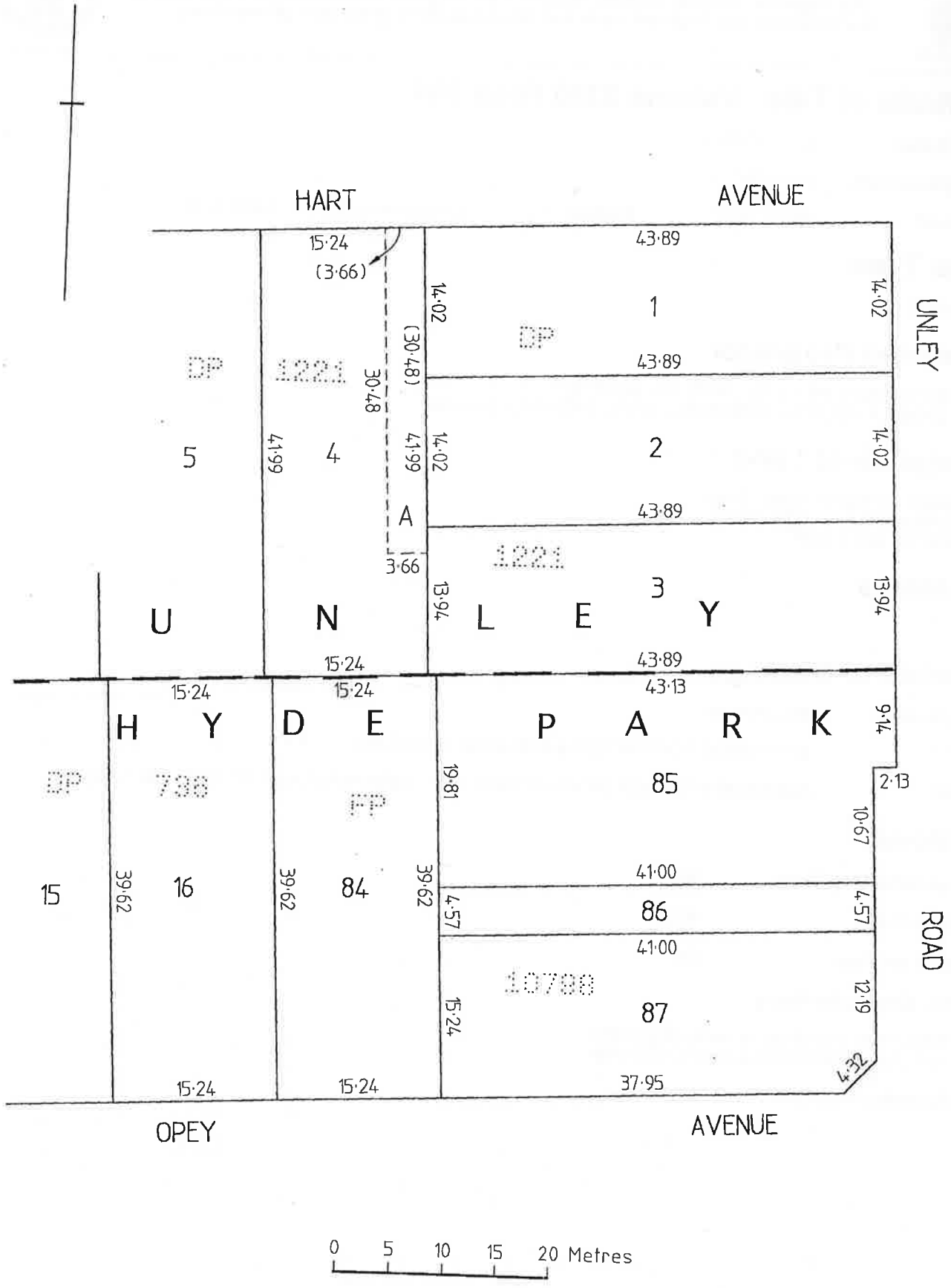
Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G261/1993
PLAN FOR LEASE PURPOSES VIDE G377/1984

Administrative Interests NIL



Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5380/236)
Date/Time	10/04/2017 10:15AM
Customer Reference	
Order ID	20170410002627
Cost	$455.00

REAL PROPERTY ACT, 1886
South Australia

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

Certificate of Title - Volume 5380 Folio 236

Parent Title(s)	CT 5177/814				
Creating Dealing(s)	PS 8126223				
Title Issued	25/11/1996	**Edition**	11	**Edition Issued**	24/03/2015

Estate Type

FEE SIMPLE

Registered Proprietor

85 CREMORNE PTY. LTD. (ACN: 161 696 484)
OF 117A GOUGER STREET ADELAIDE SA 5000

Description of Land

ALLOTMENT 85 FILED PLAN 10798
IN THE AREA NAMED HYDE PARK
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
11908865	MORTGAGE TO BENDIGO & ADELAIDE BANK LTD.
12291586	AGREEMENT UNDER DEVELOPMENT ACT, 1993 PURSUANT TO SECTION 57(1)
12511389	LEASE TO NUMBERWORKS UNLEY PTY. LTD. (ACN: 608 617 429) COMMENCING ON 14/12/2015 AND EXPIRING ON 13/12/2020 OF PORTION (SHOP 5 AND SHOP 6 IN G377/1984)

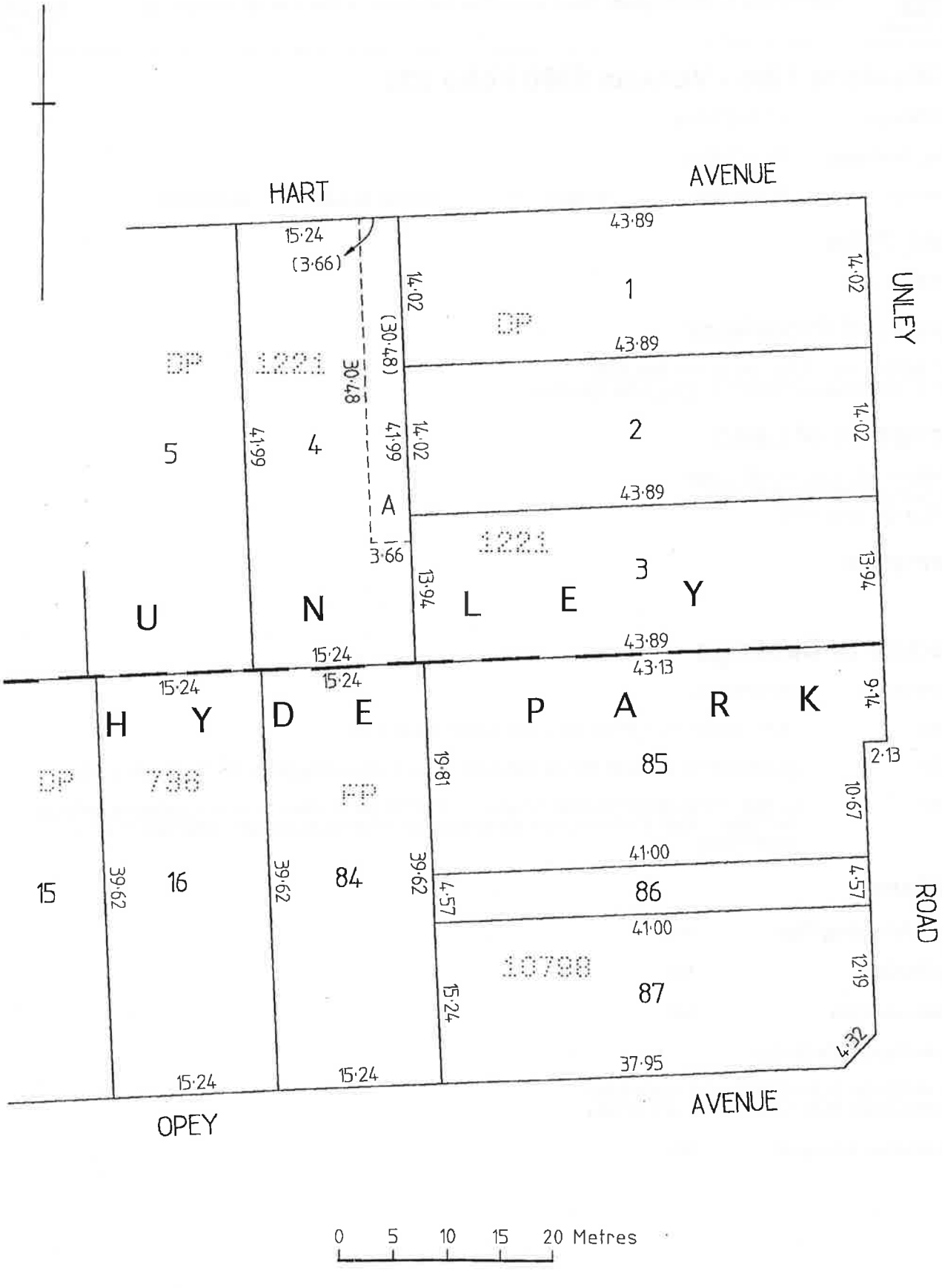
Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G261/1993
PLAN FOR LEASE PURPOSES VIDE G377/1984

Administrative Interests	NIL



Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5380/237)
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REAL PROPERTY ACT, 1886
South Australia

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Certificate of Title - Volume 5380 Folio 237

Parent Title(s)	CT 5177/813				
Creating Dealing(s)	PS 8126223				
Title Issued	25/11/1996	**Edition**	14	**Edition Issued**	24/03/2015

Estate Type

FEE SIMPLE

Registered Proprietor

8687 CREMORNE PTY. LTD. (ACN: 161 696 395)
OF 117A GOUGER STREET ADELAIDE SA 5000

Description of Land

ALLOTMENT 86 FILED PLAN 10798
IN THE AREA NAMED HYDE PARK
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
11908866	MORTGAGE TO BENDIGO & ADELAIDE BANK LTD.
12291586	AGREEMENT UNDER DEVELOPMENT ACT, 1993 PURSUANT TO SECTION 57(1)
12513588	LEASE TO NUMBERWORKS UNLEY PTY. LTD. (ACN: 608 617 429) COMMENCING ON 14/12/2015 AND EXPIRING ON 13/12/2020 OF PORTION (SHOP 5 AND SHOP 6 IN G377/1984)

Notations

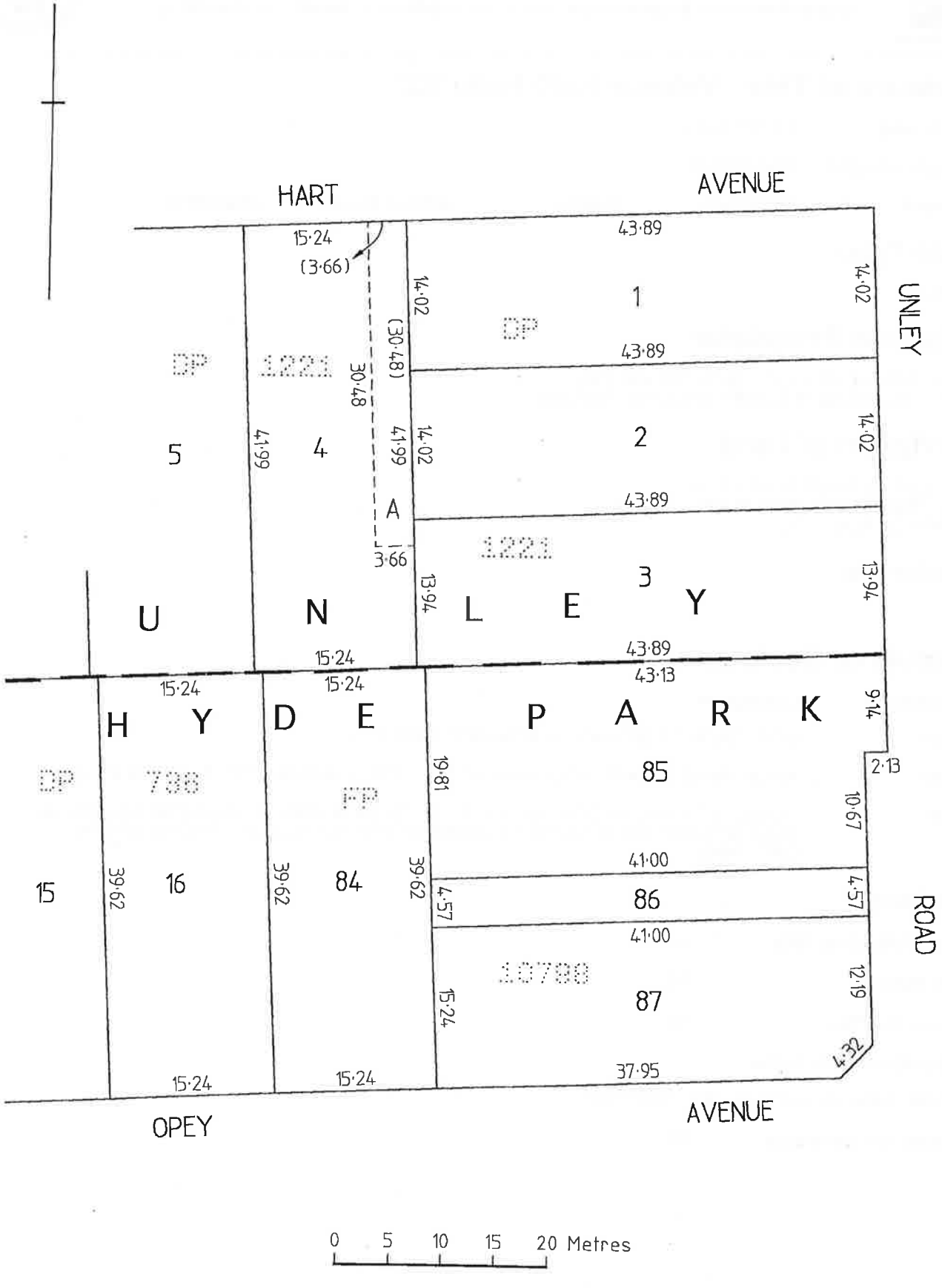
Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G377/1984

Administrative Interests	NIL

Product	Register Search (CT 5380/237)
Date/Time	10/04/2017 10:15AM
Customer Reference	
Order ID	20170410002627
Cost	$455.00



Government of South Australia
Department of Planning, Transport and Infrastructure

Product	Register Search (CT 5380/238)
Date/Time	10/04/2017 10:15AM
Customer Reference	
Order ID	20170410002627
Cost	$455.00

REAL PROPERTY ACT, 1886
South Australia

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

REGISTRAR-GENERAL SOUTH AUSTRALIA

Certificate of Title - Volume 5380 Folio 238

Parent Title(s)	CT 5177/812				
Creating Dealing(s)	PS 8126223				
Title Issued	25/11/1996	**Edition**	13	**Edition Issued**	24/03/2015

Estate Type

FEE SIMPLE

Registered Proprietor

8687 CREMORNE PTY. LTD. (ACN: 161 696 395)
OF 117A GOUGER STREET ADELAIDE SA 5000

Description of Land

ALLOTMENT 87 FILED PLAN 10798
IN THE AREA NAMED HYDE PARK
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
11908866	MORTGAGE TO BENDIGO & ADELAIDE BANK LTD.
12291586	AGREEMENT UNDER DEVELOPMENT ACT, 1993 PURSUANT TO SECTION 57(1)
12513588	LEASE TO NUMBERWORKS UNLEY PTY. LTD. (ACN: 608 617 429) COMMENCING ON 14/12/2015 AND EXPIRING ON 13/12/2020 OF PORTION (SHOP 5 AND SHOP 6 IN G377/1984)

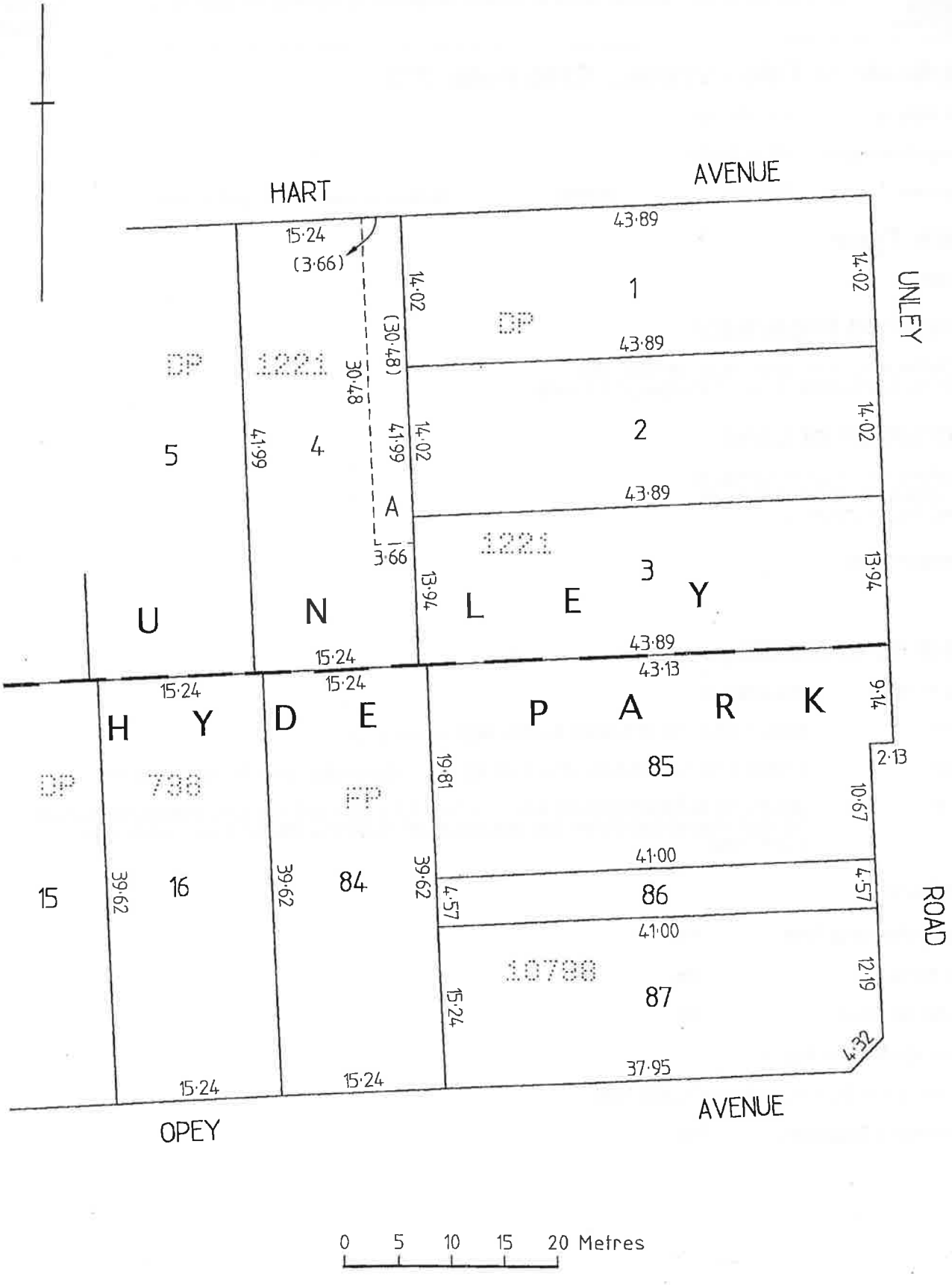
Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G377/1984

Administrative Interests	NIL



DEVELOPMENT REGULATIONS 2008

Form of Declaration

(Schedule 5, Clause 2A)

To: The State Commission Assessment Panel

From: Citify and BFC Pty Ltd

Date of Application: Thursday, 19 April 2018

Location of Proposed Development:

House Number:	248	Lot Number:	16
Road:	Opey Avenue	Town/Suburb:	Hyde Park
Section No (full/part):		Hundred:	Adelaide
Volume:	5380	Folio:	231

House Number:	248	Lot Number:	84
Road:	Opey Avenue	Town/Suburb:	Hyde Park
Section No (full/part):		Hundred:	Adelaide
Volume:	5380	Folio:	235

House Number:	248	Lot Number:	85
Road:	Unley Road	Town/Suburb:	Hyde Park
Section No (full/part):		Hundred:	Adelaide
Volume:	5380	Folio:	236

House Number:	248	Lot Number:	86
Road:	Unley Road	Town/Suburb:	Hyde Park
Section No (full/part):		Hundred:	Adelaide
Volume:	5380	Folio:	237

House Number:	248	Lot Number:	87
Road:	Unley Road	Town/Suburb:	Hyde Park
Section No (full/part):		Hundred:	Adelaide
Volume:	5380	Folio:	238

Nature of Proposed Development:

Construct three, two storey group dwellings, a residential flat building containing three, two storey dwellings, and a seven storey mixed use building containing five commercial tenancies and 63 apartments.

I, Joel Wilkinson, in my capacity as a representative of the Applicant, declare that the proposed development will involve the construction of several buildings, all of which would, if constructed in accordance with the accompanying drawings, not be contrary to the regulations prescribed for the purposes of Section 86 of the *Electricity Act 1996*.

I make this declaration under Clause 2A(1) of Schedule 5 of the *Development Regulations 2008*.

Thursday, 19 April 2018

Date

Signed

DEVELOPMENT APPLICATION FORM

AUTHORITY: THE STATE COMMISSION ASSESSMENT PANEL

APPLICANT: CITIFY AND BFC PTY LTD

Postal Address: C / – FUTURE URBAN GROUP

GPO BOX 2403, ADELAIDE, SOUTH AUSTRALIA, 5001

OWNER: REFER TO THE ACCOMPANYING CERTIFICATES OF TITLE

Postal Address:

BUILDER: TO BE CONFIRMED

Postal Address:

Licence No:

CONTACT PERSON FOR FURTHER INFORMATION:

Name: MR FABIAN BARONE

Telephone: (08) 8221 5511

Email: FABIAN@FUTUREURBANGROUP.COM

Mobile: 0423 490 724

EXISTING USE:

TWO COMMERCIAL BUILDINGS

FOR OFFICE USE

Development No:

Previous Development No:

Assessment No:

❑ Complying	Application forwarded to DA
❑ Non-complying	Commission/Council on:
❑ Notification Cat 2	/ /
❑ Notification Cat 3	Decision:
❑ Referrals/Concurrence	Type:
❑ DA Commission	Date: / /

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

DESCRIPTION OF PROPOSED DEVELOPMENT: CONSTRUCT THREE, TWO STOREY GROUP DWELLINGS, A RESIDENTIAL FLAT BUILDING CONTAINING THREE, TWO STOREY DWELLINGS, AND A SEVEN STOREY MIXED USE BUILDING CONTAINING FIVE COMMERCIAL TENANCIES AND 63 APARTMENTS

LOCATION OF PROPOSED DEVELOPMENT:

House No: 248 Lot No: 16 Road: OPEY AVENUE Town/Suburb: HYDE PARK
Section No (full/part): Hundred: ADELAIDE Volume: 5380 Folio: 231

House No: 248 Lot No: 84 Road: OPEY AVENUE Town/Suburb: HYDE PARK
Section No (full/part): Hundred: ADELAIDE Volume: 5380 Folio: 235

House No: 248 Lot No: 85 Road: UNLEY ROAD Town/Suburb: HYDE PARK
Section No (full/part): Hundred: ADELAIDE Volume: 5380 Folio: 236

House No: 248 Lot No: 86 Road: UNLEY ROAD Town/Suburb: HYDE PARK
Section No (full/part): Hundred: ADELAIDE Volume: 5380 Folio: 237

House No: 248 Lot No: 87 Road: UNLEY ROAD Town/Suburb: HYDE PARK
Section No (full/part): Hundred: ADELAIDE Volume: 5380 Folio: 238

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

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

DEVELOPMENT COST (Do not include any fit-out costs): $9,500,000

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

SIGNATURE:

Dated: 19 APRIL 2018

ON BEHALF OF CITIFY AND BFC PTY LTD

PLANNING REPORT

THREE, TWO STOREY GROUP DWELLINGS, A RESIDENTIAL FLAT BUILDING CONTAINING THREE, TWO STOREY DWELLINGS, AND A SEVEN STOREY MIXED USE BUILDING CONTAINING FIVE COMMERCIAL TENANCIES AND 63 APARTMENTS

248 UNLEY ROAD, HYDE PARK

Prepared for:
Citify and BFC Pty Ltd

Date:
20.04.2018

Proprietary Information Statement

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

Document Control

Revision	Description	Author	Date
V1	Draft	FAB	09/04/2018
V2	Final	FAB	20/04/2018

CONTENTS

APPENDICES

1. INTRODUCTION

This report relates to a proposal by Citify and BFC Pty Ltd ('the proponents') to construct three, two storey group dwellings, a residential flat building containing three, two storey dwellings and a seven storey mixed use building containing five commercial tenancies and 63 apartments at 248 Unley Road, Hyde Park.

In preparing this report, we have:

- inspected the land in question and its surroundings;
- identified and reviewed what we consider to be the most pertinent provisions of the Unley (City) Development Plan ('the Development Plan');
- reviewed the compendium of drawings at Appendix 1, the design statement at Appendix 2, the detailed landscaping plans at Appendix 3, the tree report at Appendix 4, the access, parking and traffic assessment at Appendix 5, the preliminary stormwater assessment at Appendix 6, the waste management plan at Appendix 7, the acoustic assessment at Appendix 8, the wind assessment at Appendix 9 and the sustainability report at Appendix 10; and
- had regard to the *Development Act 1993* ('the *Act*') and the *Development Regulations 2008* ('the Regulations').

This report contains our description of the land in question, its surroundings and the proposal, as well as our assessment of the proposal.

2. BACKGROUND

On Thursday, 26 March 2015, the then Development Assessment Commission granted development plan consent to Development Application 090/M003/15 ('DA M003').

DA M003 related to the land in question and the adjoining allotment to the north, and involved the construction of 10, two storey townhouses, and a seven storey mixed use building which was 27.1 metres in height and designed to accommodate five retail tenancies on the ground floor level, and 140 apartments across the first, second, third, fourth, fifth and sixth floor levels.

DA M003 also involved the removal of one regulated tree and two significant trees, as all three of those trees presented an impediment to the efficient development of that site.

Whilst that development plan consent has expired, it remains important to note, by way of background, that the former Government Architect supported the overall height, scale and form of the mixed use building and issued a pre-lodgement agreement to the Applicant.

On Thursday, 22 March 2018, the State Commission Assessment Panel granted development plan consent to Development Application 090/M008/17 ('DA M008').

DA M008 relates to the adjoining site to the north of the land in question (244 – 246 Unley Road, Unley) and involves the construction of a seven storey mixed use building which is 26.9 metres in height and has been designed to accommodate five commercial tenancies on the ground floor level, and 59 apartments across the first, second, third, fourth, fifth and sixth floor levels.

3. THE LAND

The land in question ('the land') is situated on the north-western corner of the T – junction between Unley Road and Opey Avenue, and consists of five contiguous allotments.

These allotments combine to produce a predominantly rectangular holding which has a primary frontage of 38.5 metres to Unley Road, a secondary frontage of 66.8 metres to Opey Avenue and an area of 2,849 square metres or thereabouts.

The land presently accommodates two single storey buildings, neither of which are heritage listed or classified as a contributory item under the Development Plan.

The eastern building is orientated to Unley Road and Opey Avenue, and contains several commercial tenancies. It is also flanked on its eastern side by a sealed car park which is accessible via an existing crossover on the western side of Unley Road.

The western building is orientated to Opey Avenue and is presently used as an office despite the fact that it remains domestic in appearance. It is also flanked on its western side by a sealed car park which is accessible via an existing crossover on the northern side of Opey Avenue.

In the event that the proposal is approved, all three of the existing crossovers, including the point of egress that is situated on the southern side of the eastern building, will be closed, and the affected footpaths, verges and kerbs will be reinstated in accordance with the various technical requirements.

Whilst there are no easements or encumbrances which could impede or avert the proposal altogether, there are three 'regulated' trees on the land and two 'non-regulated' trees on the northern side of Opey Avenue which will need to be removed. Two of the 'regulated' trees on the land are 'significant'.

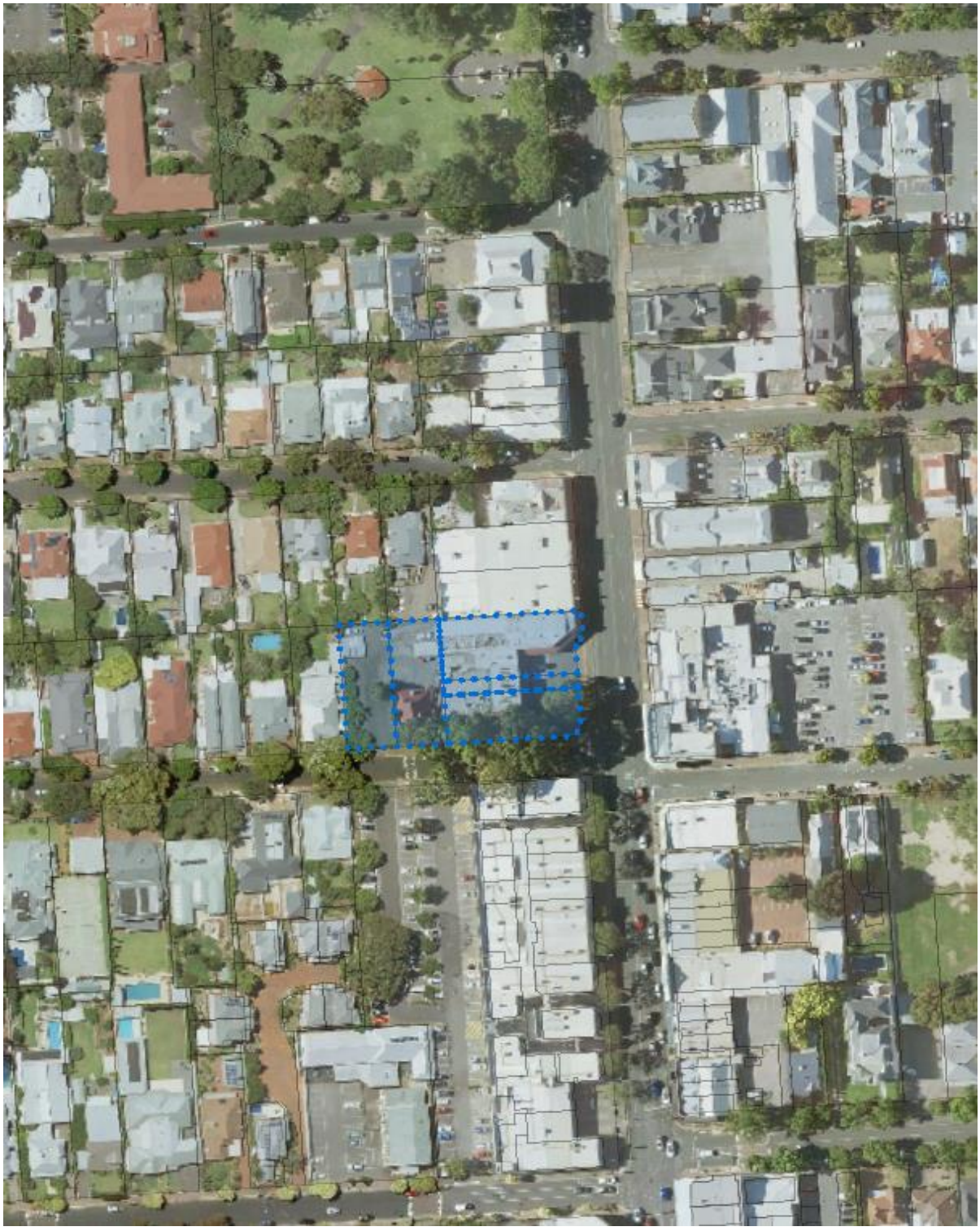
4. THE LOCALITY

Whilst inspecting the land and its surroundings, we noticed, amongst other things, that:

- there are two detached dwellings and a commercial building which contains four tenancies on the northern side of the land (the commercial building to which we refer is about to be demolished and subsequently replaced by a seven storey mixed use building);
- there is a detached dwelling on the western side of the land;
- the Cremorne Hotel is situated on the north-eastern corner of the T – junction between Unley Road and Cremorne Street;
- there is a shop on the south-eastern corner of the T – junction between Unley Road and Cremorne Street which is occupied by 'Bed Bath N Table';
- the Metro Shopping Centre is situated on the south-western corner of the T – junction between Unley Road and Opey Avenue;
- the Soldiers Memorial Gardens are situated less than 140 metres to the north of the land;
- the Unley Shopping Centre is situated less than 220 metres to the north of the land;
- Unley Road, a secondary arterial road which falls under the care and control of the Department of Planning, Transport and Infrastructure, consists of two north-bound lanes and two south-bound lanes;
- there is a 'clearway' along the western side of Unley Road which operates from 7:30 am to 9:00 am on weekdays only;
- cars are permitted to be parked along the western side of Unley Road for up to, but not exceeding, one hour at a time between 9:00 am and 5:00 pm on weekdays, and between 9:00 am and 12:00 pm on Saturdays (no further restrictions apply outside of these times, apart from when the aforementioned 'clearway' is in operation);
- Opey Avenue, a local road which falls under the care and control of the City of Unley, consists of two unmarked lanes;
- there are no parking restrictions along the northern side of Opey Avenue; and
- there are two bus stops within 50 metres of the land (both stops are situated on Unley Road).

The land, in relation to its surroundings, is captured in Figure 3.1 overleaf.

Figure 3.1 – The Locality



5. THE PROPOSAL

The proponents intend to construct three, two storey group dwellings, a residential flat building containing three, two storey dwellings and a seven storey mixed use building containing five commercial tenancies and 63 apartments on the land.

The proposal is depicted in its entirety across the compendium of drawings at Appendix 1. It is also summarised below.

5.1 Design Philosophy

The philosophy behind the design of all three buildings is captured within the design statement at Appendix 2.

5.2 Group Dwellings

The following description relates solely to the group dwellings.

For clarity, the group dwellings are situated in the south-western corner of the land and are marked 'A', 'B' and 'C' on the ground and first floor plans.

5.2.1 Siting

The ground floor level of Dwellings A, B and C will be set back between 3.0 metres and 5.2 metres from Opey Avenue.

The ground floor level of Dwelling A will also be set back between 2.0 metres and 2.1 metres from the western boundary of the land.

The first floor level of Dwellings A, B and C will be set back between 5.0 metres and 5.5 metres from Opey Avenue.

The first floor level of Dwelling A will also be set back between 4.7 metres and 4.8 metres from the western boundary of the land.

5.2.2 Floor Area

Dwellings A, B and C will have an internal floor area of 157.0 square metres, 164.2 square metres and 164.2 square metres respectively.

5.2.3 Internal Layout

Each group dwelling will contain an open plan kitchen, dining and living room, three bedrooms, including a master suite which will have its own ensuite and balcony, a bathroom, a water closet, a laundry and a double garage.

5.2.4 Private Open Space

Dwellings A, B and C will come equipped with 44.9 square metres, 36.6 square metres and 36.6 square metres respectively of private open space.

5.2.5 Height

Each group dwelling will consist of two floor levels and range from 3.1 metres to 6.4 metres in height.

5.2.6 External Materials

The group dwellings will be assembled from a contemporary yet robust palette of materials.

The palette to which we refer presently includes reclaimed red clay bricks, rendered hebel, powder coated aluminium and steel, and clear and obscure glass.

5.2.7 Access

Each group dwelling will come equipped with a double garage.

The double garages will be accessible via free and unrestricted rights of way over a portion of the common driveway to the north and to the east.

5.2.8 Parking

Each double garage has been designed to accommodate two motor vehicles side-by-side.

5.2.9 Stormwater

Runoff from the roof atop each group dwelling is expected to be captured and subsequently released to Opey Avenue at an appropriate rate.

5.2.10 Waste

Each group dwelling will come equipped with three plastic bins, one for putrescibles, one for recyclables and one for organics. The bins will be stored within the confines of the double garages and wheeled to the verge on the northern side of Opey Avenue on collection days.

5.2.11 Fencing

The courtyards on the southern side of the group dwellings will be concealed from Opey Avenue by a 1.5 metre high, rendered masonry fence.

5.2.12 Landscaping

The curtilage of each group dwelling will be neatly landscaped with a suitable selection of trees, shrubs and grasses.

Whilst the type and extent of landscaping proposed is captured across the detailed landscaping plans at Appendix 3, it is important to note from the very outset that the proponents have selected a handful of species based on their aesthetic qualities, suitability to local conditions, sustainability with little to no supplementary irrigation and propensity to drop leaves.

5.3 Residential Flat Building

The following description relates solely to the residential flat building.

For clarity, the residential flat building is situated in the north-western corner of the land and contains those dwellings marked 'D', 'E' and 'F' on the ground and first floor plans.

5.3.1 Siting

The ground floor level of the residential flat building will be set back 3.0 metres from the northern boundary of the land, and between 2.2 metres and 2.3 metres from the western boundary of the land.

The first floor level of the residential flat building will be set back between 3.1 metres and 3.8 metres from the northern boundary of the land, and between 4.8 metres and 4.9 metres from the western boundary of the land.

5.3.2 Floor Area

Dwellings D, E and F will have an internal floor area of 155.7 square metres, 165.8 square metres and 165.9 square metres respectively.

5.3.3 Internal Layout

Each dwelling will contain an open plan kitchen, dining and living room, three bedrooms, including a master suite which will have its own ensuite and balcony, a bathroom, a water closet, a laundry and a double garage.

5.3.4 Private Open Space

Dwellings D, E and F will come equipped with 77.9 square metres, 42.5 square metres and 40.7 square metres respectively of private open space.

5.3.5 Height

The residential flat building will consist of two floor levels and range from 3.0 metres to 6.4 metres in height.

5.3.6 External Materials

The residential flat building will be assembled from a contemporary yet robust palette of materials.

The palette to which we refer presently includes reclaimed red clay bricks, rendered hebel, powder coated aluminium and steel, and clear and obscure glass.

5.3.7 Access

Each dwelling will come equipped with a double garage. The double garages will be accessible via the common driveway to the south.

5.3.8 Parking

Each double garage has been designed to accommodate two motor vehicles side-by-side.

5.3.9 Stormwater

Runoff from the roof of the residential flat building is expected to be captured and subsequently released at an appropriate rate to Opey Avenue via the common driveway.

5.3.10 Waste

The prospective occupants of these dwellings will need to deposit their putrescibles, recyclables and organics in the waste room on the ground floor level of the mixed use building.

5.3.11 Landscaping

The curtilage of the residential flat building will be neatly landscaped with a suitable selection of trees, shrubs and grasses.

Whilst the type and extent of landscaping proposed is captured across the detailed landscaping plans at Appendix 3, it is important to note from the very outset that the proponents have selected a handful of species based on their aesthetic qualities, suitability to local conditions, sustainability with little to no supplementary irrigation and propensity to drop leaves.

5.4 Mixed Use Building

The following description relates solely to the mixed use building.

For clarity, the mixed use building occupies the eastern half or thereabouts of the land.

5.4.1 Land Use Mix

The mixed used building will contain five commercial tenancies on the ground floor level, three of which will extend upwards to the first floor level, and 63 apartments across the first, second, third, fourth, fifth and sixth floor levels.

In terms of the overall apartment mix, there will be 12 studio apartments, three, one bedroom apartments, 25, two bedroom apartments and 23, three bedroom apartments.

5.4.2 Lower Basement

The lower basement will contain 46 spaces for motor vehicles, two spaces for motorised scooters and 34 spaces for bicycles, an enclosure for the fire pump and customised cages for domestic storage.

It will also contain a lift shaft and two stairwells.

5.4.3 Basement

The basement will contain 44 spaces for motor vehicles, two spaces for motorised scooters and 33 spaces for bicycles, an enclosure for this building's services and customised cages for domestic storage.

It will also contain a lift shaft and two stairwells.

5.4.4 Ground Floor Level

The ground floor level will contain five commercial tenancies, three of which will extend upwards to the first floor level.

The composition of each of these tenancies is set out in Table 5.1 below.

Table 5.1 – Commercial Tenancy Composition (Ground Floor Level)

Tenancy	Area
G.01	129.9 square metres
G.02	366.6 square metres
G.03	115.6 square metres
G.04	69.5 square metres
G.05	122.0 square metres

The ground floor level will also feature an outdoor dining area on the southern side of Tenancy G.02, a landscaped entry plaza, a lobby and coffee bar, an at-grade car park which consists of 11 line marked spaces, one of which will be set aside at all times for people with a disability, a waste room, a secure storage facility for 20 bicycles and a ramp which transitions down to the basement.

5.4.5 First Floor Level

The first floor level will contain the upper floor level of Tenancies G.03, G.04 and G.05, and 15 apartments, including 12 studio apartments, two, two bedroom apartments and one, three bedroom apartment.

The composition of each of these apartments is set out in Table 5.2 below.

Table 5.2 – Apartment Composition (First Floor Level)

Apartment	Floor Area	Bedrooms	Private Open Space	Domestic Storage Space	Car Parking
1.01	42.4 square metres	One	7.1 square metres	10.9 cubic metres	None
1.02	43.2 square metres	One	7.3 square metres	10.9 cubic metres	None

Apartment	Floor Area	Bedrooms	Private Open Space	Domestic Storage Space	Car Parking
1.03	44.6 square metres	One	7.5 square metres	10.9 cubic metres	None
1.04	53.0 square metres	One	9.0 square metres	10.9 cubic metres	None
1.05	51.8 square metres	One	8.7 square metres	10.9 cubic metres	None
1.06	68.0 square metres	Two	23.7 square metres	14.2 cubic metres	One space
1.07	52.3 square metres	One	8.8 square metres	10.9 cubic metres	None
1.08	89.8 square metres	Three	16.8 square metres	18.8 cubic metres	Two spaces
1.09	67.6 square metres	Two	21.9 square metres	14.2 cubic metres	One space
1.10	51.6 square metres	One	7.4 square metres	10.9 cubic metres	None
1.11	51.3 square metres	One	7.4 square metres	10.9 cubic metres	None
1.12	43.6 square metres	One	6.3 square metres	10.9 cubic metres	None
1.13	43.6 square metres	One	6.3 square metres	10.9 cubic metres	None
1.14	43.1 square metres	One	6.2 square metres	10.9 cubic metres	None
1.15	43.1 square metres	One	6.2 square metres	10.9 cubic metres	None

5.4.6 Second Floor Level

The second floor level will contain 10 apartments, including five, two bedroom apartments and five, three bedroom apartments.

The composition of each of these apartments is set out in Table 5.3 below.

Table 5.3 – Apartment Composition (Second Floor Level)

Apartment	Floor Area	Bedroom	Private Open Space	Domestic Storage Space	Parking
2.01	80.4 square metres	Two	23.6 square metres	19.2 cubic metres	One space
2.02	73.2 square metres	Two	24.9 square metres	16.3 cubic metres	One space
2.03	90.1 square metres	Three	29.3 square metres	21.5 cubic metres	Two spaces
2.04	67.0 square metres	Two	23.8 square metres	14.2 cubic metres	One space
2.05	93.9 square metres	Three	28.1 square metres	21.8 cubic metres	Two spaces
2.06 (Lower Level)	60.8 square metres	One on lower level (three in total)	29.3 square metres	18.8 cubic metres	Two spaces
2.07	94.0 square metres	Three	25.7 square metres	21.8 cubic metres	Two spaces
2.08	67.0 square metres	Two	21.9 square metres	14.2 cubic metres	One space
2.09	90.1 square metres	Three	26.9 square metres	21.5 cubic metres	Two spaces
2.10	73.0 square metres	Two	22.9 square metres	16.3 cubic metres	One space

The second floor level will also contain a large communal space and a landscaped piazza.

The communal space, which will be accessible to all of the prospective residents, will feature a swimming pool and spa, a lounge, a games room, and barbeque and dining facilities.

5.4.7 Third Floor Level

The third floor level will contain 11 apartments, including one, one bedroom apartment, six, two bedroom apartments and four, three bedroom apartments.

The composition of each of these apartments is set out in Table 5.4 below.

Table 5.4 – Apartment Composition (Third Floor Level)

Apartment	Floor Area	Bedrooms	Private Open Space	Domestic Storage Space	Parking
3.01	54.6 square metres	One	8.0 square metres	13.1 cubic metres	One space
3.02	80.4 square metres	Two	12.7 square metres	19.2 cubic metres	One space
3.03	73.3 square metres	Two	12.2 square metres	16.3 cubic metres	One space
3.04	89.7 square metres	Three	15.0 square metres	21.5 cubic metres	Two spaces
3.05	67.0 square metres	Two	13.9 square metres	14.2 cubic metres	One space
3.06	94.0 square metres	Three	16.6 square metres	21.8 cubic metres	Two spaces
2.06 (Upper Level)	60.8 square metres	Two on upper level (three in total)	29.3 square metres	18.8 cubic metres	Two spaces
3.07	94.0 square metres	Three	17.2 square metres	21.8 cubic metres	Two spaces
3.08	67.0 square metres	Two	13.9 square metres	14.2 cubic metres	One space

Apartment	Floor Area	Bedrooms	Private Open Space	Domestic Storage Space	Parking
3.09	89.7 square metres	Three	15.0 square metres	21.5 cubic metres	Two spaces
3.10	73.3 square metres	Two	11.9 square metres	16.3 cubic metres	One space
3.11	80.4 square metres	Two	12.4 square metres	19.2 cubic metres	One space

5.4.8 Fourth Floor Level

The fourth floor level will contain 12 apartments, including one, one bedroom apartment, six, two bedroom apartments and five, three bedroom apartments.

The composition of each of these apartments is set out in Table 5.5 below.

Table 5.5 – Apartment Composition (Fourth Floor Level)

Apartments	Floor Area	Bedrooms	Private Open Space	Domestic Storage Space	Parking
4.01	54.6 square metres	One	8.0 square metres	13.1 cubic metres	One space
4.02	80.4 square metres	Two	12.7 square metres	19.2 cubic metres	One space
4.03	73.3 square metres	Two	12.2 square metres	16.3 cubic metres	One space
4.04	89.7 square metres	Three	15.0 square metres	21.5 cubic metres	Two spaces
4.05	67.0 square metres	Two	13.9 square metres	14.2 cubic metres	One space
4.06	94.0 square metres	Three	16.6 square metres	21.8 cubic metres	Two spaces

Apartments	Floor Area	Bedrooms	Private Open Space	Domestic Storage Space	Parking
4.07 (Lower Level)	60.8 square metres	One on lower level (three in total)	18.0 square metres	18.8 cubic metres	Two spaces
4.08	94.0 square metres	Three	17.2 square metres	21.8 cubic metres	Two spaces
4.09	67.0 square metres	Two	13.9 square metres	14.2 cubic metres	One space
4.10	89.7 square metres	Three	15.0 square metres	21.5 cubic metres	Two spaces
4.11	73.2 square metres	Two	11.9 square metres	16.3 cubic metres	One space
4.12	80.4 square metres	Two	12.4 square metres	19.2 cubic metres	One space

5.4.9 Fifth Floor Level

The fifth floor level will contain 11 apartments, including one, one bedroom apartment, six, two bedroom apartments and four, three bedroom apartments.

The composition of each of these apartments is set out in Table 5.6 below.

Table 5.6 – Apartment Composition (Fifth Floor Level)

Apartments	Floor Area	Bedrooms	Private Open Spaces	Domestic Storage Space	Parking
5.01	54.6 square metres	One	8.0 square metres	13.1 cubic metres	One space
5.02	80.4 square metres	Two	12.7 square metres	19.2 cubic metres	One space
5.03	73.3 square metres	Two	12.2 square metres	16.3 cubic metres	One space

Apartments	Floor Area	Bedrooms	Private Open Spaces	Domestic Storage Space	Parking
5.04	89.7 square metres	Three	15.0 square metres	21.5 cubic metres	Two spaces
5.05	67.0 square metres	Two	13.9 square metres	14.2 cubic metres	One space
5.06	94.0 square metres	Three	16.6 square metres	21.8 cubic metres	Two spaces
4.07 (Upper Level)	51.2 square metres	Two on upper level (three in total)	18.0 square metres	18.8 cubic metres	Two spaces
5.07	93.9 square metres	Three	17.1 square metres	21.8 cubic metres	Two spaces
5.08	67.0 square metres	Two	13.9 square metres	14.2 cubic metres	One space
5.09	89.7 square metres	Three	15.0 square metres	21.5 cubic metres	Two spaces
5.10	73.2 square metres	Two	11.9 square metres	16.3 cubic metres	One space
5.11	80.4 square metres	Two	12.4 square metres	19.2 cubic metres	One space

5.4.10 Sixth Floor Level

The sixth floor level will contain four, three bedroom apartments.

The composition of each of these apartments is set out in Table 5.7 below.

Table 5.7 – Apartment Composition (Sixth Floor Level)

Apartment	Floor Area	Bedrooms	Private Open Space	Domestic Storage Space	Parking
6.01	153.6 square metres	Three	75.0 square metres	47.6 cubic metres	Two spaces
6.02	155.2 square metres	Three	83.0 square metres	41.3 cubic metres	Two spaces
6.03	161.0 square metres	Three	121.2 square metres	49.7 cubic metres	Two spaces
6.04	167.3 square metres	Three	119.1 square metres	47.4 cubic metres	Two spaces

5.4.11 Siting

The ground and first floor levels will abut the northern, eastern and southern boundaries of the land, and be set back between 30.3 metres and 35.4 metres from the western boundary of the land.

The second floor level will be set back between 0.0 metres and 3.0 metres from the northern boundary of the land, between 2.4 metres and 6.6 metres from the eastern boundary of the land, between 2.4 metres and 3.1 metres from the southern boundary of the land, and between 31.7 metres and 35.4 metres from the western boundary of the land.

The third, fourth and fifth floor levels will be set back between 3.0 metres and 5.6 metres from the northern boundary of the land, between 2.4 metres and 6.6 metres from the eastern boundary of the land, between 2.4 metres and 3.1 metres from the southern boundary of the land, and between 31.7 metres and 35.4 metres from the western boundary of the land.

The sixth floor level will be set back between 3.9 metres and 5.0 metres from the northern boundary of the land, between 4.7 metres and 7.8 metres from the eastern boundary of the land, between 3.9 metres and 5.0 metres from the southern boundary of the land, and between 36.9 metres and 37.9 metres from the western boundary of the land.

5.4.12 Floor to Ceiling Heights

The proposed floor to ceiling heights are set out in Table 5.8 below.

Table 5.8 – Floor to Ceiling Heights

Floor Level	Floor to Ceiling Height
Lower Basement	2.6 metres
Basement	2.9 metres
Ground Floor Level	3.8 metres
First, Second, Third, Fourth and Fifth Floor Levels	2.7 metres
Sixth Floor Level	3.4 metres

5.4.13 Building Height

The mixed use building will consist of nine levels (seven storeys plus two basement levels).

It will also stand approximately 24.55 metres tall when measured from the top of the lift overrun to the finished ground level directly below.

5.4.14 External Materials

The mixed use building will be assembled from a contemporary yet robust palette of materials.

The palette to which we refer presently includes white and charcoal tinted concrete, bluestone tiles, powder coated aluminium and steel, and clear and obscure glass.

5.4.15 Access

All three of the existing crossovers will be closed and subsequently replaced by a single, 6.1 metre wide crossover on the northern side of Opey Avenue.

The new crossover has been designed to facilitate simultaneous two-way movements and to allow the common driveway to connect into the southern end of the private roadway which was approved as part of DA M008.

5.4.16 Parking

No car parking spaces will be assigned to the studio apartments.

One car parking space will be assigned to each of the one and two bedroom apartments.

Two car parking spaces will be assigned to each of the three bedroom apartments.

The at-grade car park will be set aside for customers during business hours and is expected to be shared by visitors outside of business hours.

A total of 67 spaces for bicycles will be provided within the confines of the basement. Another 20 spaces will be provided at the northern end of the ground floor level.

5.4.17 Stormwater

It is clear from the preliminary stormwater assessment at Appendix 6 that:

- stormwater captured by the roof of the mixed use building will be diverted to a large detention tank;
- stormwater which enters the basement will be diverted to sumps with twin submersible pumps, then pumped back up to the existing stormwater drainage network; and
- the post-development discharge flows will not exceed the pre-development discharge flows.

5.4.18 Waste

All waste will be deposited and temporarily stored within the confines of the 'waste room' on the ground floor level.

The 'waste room' has been specifically designed to accommodate:

- three waste chutes for separate waste streams (putrescibles, recyclables and organics);
- four, 660 litre bins and two, 240 litre bins for putrescibles, three, 660 litre bins and two, 240 litre bins for recyclables, and three, 660 litre bins and one, 240 litre bin for organics; and
- an area where the bins can be regularly rinsed.

The bins will be collected, emptied and returned by a private waste contractor via the common driveway, and in accordance with the schedule set out on the fifth page of the waste management plan at Appendix 5.

Figure 4 on the eighth page of the access, parking and traffic assessment at Appendix 5 indicates that an 8.8 metre long commercial vehicle will be able to enter and exit the land in a forward direction via the new crossover on the northern side of Opey Avenue.

5.4.19 Landscaping

The entry plaza on the ground floor level, and the communal area and central piazza on the second floor level of the mixed use building will be neatly landscaped with a suitable selection of trees, shrubs and grasses.

Whilst the type and extent of landscaping proposed is captured across the detailed landscaping plans at Appendix 3, it is important to note from the very outset that the proponents have selected a handful of species based on their aesthetic qualities, suitability to local conditions, sustainability with little to no supplementary irrigation and propensity to drop leaves.

5.4.20 Letter Boxes

A communal letter box will be installed on the southern side of the lobby.

The communal letter box will be sheltered from the elements. It will also be highly visible, and readily accessible, from the landscaped entry plaza on the eastern side of the mixed use building.

5.4.21 Services

Most of the building's services will be situated down in the basement.

5.4.22 Environmental Sustainability

The proponents intend to minimise the environmental impact of this development by:

- laying reclaimed red clay bricks;
- installing double glazing, thickened insulation, water efficient tapware, and energy efficient downlights and air conditioning units;
- facilitating natural ventilation, where possible;
- using paints which contain fewer volatile organic compounds;
- engineering and designing the roof of the mixed use building in a manner that will eventually allow for the installation of an efficient bank of solar panels; and
- providing secure storage facilities for bicycles which, in turn, will promote a sustainable form of transport and a healthier lifestyle.

According to the sustainability report at Appendix 9, all of the apartments are expected to achieve a rating of more than five stars and the mixed use building is expected to achieve an average rating of more than six stars.

5.5 Demolition

In order for the proposal to progress, all of the existing structures within the confines of the land will need to be demolished and subsequently removed.

With that said, the proponents neither seek nor require development plan consent to demolish or remove any of these structures.

5.6 Tree Damaging Activity

In order for the proposal to progress, three 'regulated' trees, two of which are 'significant', will need to be removed from the land. Two 'non-regulated' trees on the northern side of Opey Avenue will also need to be removed and subsequently replaced with six jacaranda trees.

The trees in question are summarised in Table 5.9 below. Their respective locations are also plotted on the sixth page of the tree report at Appendix 4.

Table 5.9 – Regulated and Significant Tree Summary

Number	Species	Circumference	Classification
1	Corymbia maculata	3.22 metres	Significant
2	Eucalyptus viminalis	3.83 metres	Significant
3	Angophora costata	2.25 metres	Regulated
6	Angophora costata	1.2 metres	Non-regulated
7	Franxius angustifolia	900 millimetres	Non-regulated

5.7 Encroachments

The canopies on the eastern and southern sides of the ground floor level of the mixed use building will extend 1.8 metres beyond the eastern and southern boundaries of the land to provide shelter and shade for pedestrians.

5.8 Staging

The proposal, if consented to, will be carried out across five consecutive stages.

The first stage will involve the demolition of the existing structures on the land and the construction of the mixed use building.

The second stage will involve the construction of the residential flat building.

The third, fourth and fifth stages will involve the construction of Dwelling A, Dwelling B and Dwelling C respectively.

6. PROCEDURAL MATTERS

6.1 The Relevant Authority

According to Schedule 10, Part 4, Clause (1), Subordinate Clause (a) of the *Regulations*, the State Commission Assessment Panel must act as the relevant authority for two reasons.

First, the land falls within the ambit of an urban corridor zone which belongs to the City of Unley.

Second, the mixed use building, once completed, will exceed four storeys in height.

6.2 The Relevant Development Plan

The relevant version of the Development Plan for procedural and assessment purposes was gazetted and subsequently consolidated on Tuesday, 19 December 2017.

The land, under this version of the Development Plan, is situated in High Street (Unley Road) Policy Area 20 ('PA 20') of the Urban Corridor Zone ('the Zone') and abuts, on its western side, Precinct 8.5 of Policy Area 8 of the Residential Streetscape (Built Form) Zone.

6.3 Form of Development

According to Principles of Development Control ('Principles') 21 and 22 of the Zone, the mixed use building is neither a complying nor a non-complying form of development. The same can also be said for the group dwellings and residential flat building.

As a consequence of this, the proposal must be assessed and subsequently determined on its merits by the State Commission Assessment Panel in its capacity as the relevant authority.

6.4 Category of Development

According to Principle 23 of the Zone, the mixed use building falls within the ambit of Category 2 development. As a consequence of this, the State Commission Assessment Panel must notify the owners and occupiers of each piece of adjacent land of the proposal.

6.5 Statutory Referral to the Commissioner of Highways

We are of the view that the proposal need not be referred to the Commissioner of Highways.

In support of our view, we note that:

- the existing crossover on the western side of Unley Road will be closed, not altered;
- the existing crossovers on the northern side of Opey Avenue will be closed, not altered, and are situated more than 25 metres to the west of the T – junction between Unley Road and Opey Avenue;
- the new crossover on the northern side of Opey Avenue will be situated more than 25 metres to the west of the T – junction between Unley Road and Opey Avenue; and
- the road widening that affects the land has already taken place.

7. ASSESSMENT

Our assessment of the proposal is set out below.

7.1 Land Use Mix

The proposed land use mix is considered to be acceptable on the basis that all three uses (dwellings/apartments, residential flat buildings and shops) are 'envisaged' within this part of the Zone.

Principle 1 of PA 20 and Principle 1 of the Zone clearly attest to this.

The spatial arrangement of the land uses within the mixed use building is also considered to be consistent with the Desired Character Statement ('DCS') for PA 20 and Objective 2 of the Zone.

For clarity:

- the former calls for Unley Road to be transformed into a vibrant, intimate and appealing mixed use, pedestrian friendly corridor which consists of small scale retail, mixed business and entertainment facilities at ground and lower levels with medium to high density living at upper levels of multi-storey buildings; and
- the latter calls for integrated, mixed use, medium and high rise buildings with ground floor uses that create active and vibrant streets with residential development above.

The provision of a covered outdoor dining area on the southern side of Tenancy G.02 is also considered to be consistent with the Clause (a), Subordinate Clause (iv) of the DCS for PA 20.

7.2 Ground Floor Level

Principles 5, 6 and 7 of PA 20 provide guidance with respect to the ground floor level of the mixed use building.

They advise that:

5 **The finished ground floor level should be at grade and level with the footpath.**

6 **The ground floor of buildings should be built to dimensions including a minimum floor to ceiling height of 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.**

7 **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.**

The finished floor level of the ground floor level of the mixed use building will sit flush with the surface of the abutting footpaths, as sought by Principle 5 of PA 20.

The floor to ceiling height of the ground floor level of the mixed use building (3.8 metres) will exceed the relevant minimum quantitative guideline (3.5 metres) by 300 millimetres.

Approximately 78.7 percent of the ground floor level's primary façade will be glazed, as sought by Principle 7 of PA 20.

7.3 Gross Leasable Floor Area

Principle 3 of PA 20 provides guidance with respect to the gross leasable floor area of the commercial tenancies on the ground floor level of the mixed use building.

It advises that:

3 **Shops or groups of shops contained in a single building should have a maximum gross leasable floor area in the order of 450 square metres (per tenancy).**

The gross leasable floor area assigned to Tenancies G.01, G.02, G.03, G.04 and G.05 falls below the relevant maximum quantitative guideline (450 square metres) by 320.1 square metres, 83.4 square metres, 334.4 square metres, 380.5 square metres and 328.0 square metres respectively.

7.4 Affordable Housing

The land falls within the ambit of an area to which the 'Affordable Housing' Overlay applies.

Principle 1 of this Overlay is, therefore, relevant to our assessment of the proposal.

It advises that:

1 **Development comprising 20 or more dwellings should include a minimum of 15 percent affordable housing (as defined by the South Australian Housing Trust Regulations 2010, as amended).**

All 12 of the studio apartments on the first floor level of the mixed use building will be marketed as 'affordable housing'. These apartments account for 19.0 percent of the overall apartment mix, as sought by Principle 1 of this Overlay.

7.5 Density

Principle 5 of the Zone provides guidance with respect to the density of this development.

It advises that:

5 **Residential development should achieve a minimum net residential site density in accordance with the following:**

Policy Area	Minimum Net Density
High Street (Unley Road) Policy Area 20	**60 dwellings per hectare**

The density of this development (221.1 dwellings per hectare) comfortably exceeds the relevant minimum quantitative guideline (60 dwellings per hectare) by 161.1 dwellings per hectare and is consistent with the DCS for PA 20 which calls, in part, for "*medium to high density living at upper levels of multi-storey buildings*".

7.6 Apartment Composition

Principle 16 of the 'Medium and High Rise Development' Module provides guidance with respect to the composition of the apartments within the mixed use building.

It advises that:

16 Buildings comprising more than 10 dwellings should provide a variety of dwelling sizes and a range in the number of bedrooms per dwelling.

The mixed use building will contain a variety of apartments, as sought by Principle 16.

For example, the apartments will range in size from 42.4 square metres to 167.3 square metres.

There will also be 12 studio apartments, three, one bedroom apartments, 25, two bedroom apartments and 23, three bedroom apartments for the market to select from.

7.7 Private Open Space

Principles 20 and 22 of the 'Residential Development' Module provide guidance with respect to private open space.

They advise that:

20 Private open space should be provided for each dwelling, and sited and designed to be:

(a) located adjacent or behind the primary street facing building façade and be exclusive of storage areas, outbuildings, carports, driveways, parking spaces and roofed pergolas and associated structures;

(b) screened from public areas and adjoining properties with fencing of not less than 1.8 metres above finished ground level;

(c) sited to receive direct winter sunlight;

(d) of sufficient area with a minimum of 20 percent of the site area (> 300 square metre site area per dwelling) and 35 square metres (< 300 square metre site area per dwelling) within a residential zone and 20 square metres for each site within a non-residential zone;

(e) useable for residents and visitors with a minimum of 4.0 metres (residential zone) and 3.0 metres (non-residential zone) in any one direction, a maximum grade of 1 in 10, and directly accessible from a habitable room.

22 Private and communal open space may also include balcony areas, roof patios and similar structures provided the area:

(a) is screened to 1.7 metres high;

(b) has a minimum dimension of 2.0 metres;

(c) has at least 70 percent uncovered by roof structures.

The amount of private open space assigned to Dwellings A, B, C, D, E and F exceeds the relevant minimum quantitative guideline (20 square metres) by 24.9 square metres, 16.6 square metres, 16.7 square metres, 57.9 square metres, 22.5 square metres and 20.7 square metres respectively.

The courtyards and balconies associated with these dwellings will also have a minimum dimension of not less than 3.0 metres and 2.0 metres respectively, as sought by Principles 20 and 22 of the 'Residential Development' Module.

Moving on, and in the absence of any realistic guidance, we believe that it is appropriate and, in fact, necessary to park Principle 20 of the 'Residential Development' Module to one side and to subsequently defer to Principle 59 of the 'Medium to High Scale Residential' Module of the most recently consolidated version of the Adelaide (City) Development Plan in order to determine whether or not the amount of private open space assigned to the apartments within the mixed use building is acceptable.

For clarity, this Principle advises that:

59 **Medium to high scale residential development and serviced apartments should provide the following private open space:**

(a) studio apartment (where there is no separate bedroom): no minimum requirement but some provision is desirable.

(b) one bedroom apartment: 8.0 square metres.

(c) two bedroom apartment: 11.0 square metres.

(d) three or more bedroom apartment: 15.0 square metres.

All of the studio apartments on the first floor level (Apartments 1.01, 1.02, 1.03, 1.04, 1.05, 1.07, 1.10, 1.11, 1.12, 1.13, 1.14 and 1.15) will come equipped with not less than 6.2 square metres of private open space despite the fact that there is no minimum requirement for apartments of this nature.

The remaining apartments on the first floor level will come equipped with more than the recommended amount of private open space. The same can also be said for those apartments on the second, third, fourth, fifth and sixth floor levels.

With that said, it remains important to note that these private open spaces will also be supplemented by the large communal space and landscaped piazza on the second floor level, as sought by Principle 22.

As an aside, we note that the areas prescribed under Principle 59 of the 'Medium to High Scale Residential' Module have also been adopted by the Burnside (City), Norwood, Payneham and St Peters (City), Prospect (City) and West Torrens Council Development Plans for apartments within the Urban Corridor Zone.

7.8 Domestic Storage Space

Principle 25 of the 'Medium and High Rise Development' Module provides guidance with respect to domestic storage.

It advises that:

25 **Dwellings should provide a covered storage area of not less than 8.0 cubic metres in one or more of the following areas:**

(a) in the dwelling (but not including a habitable room);

(b) in a garage, car port, outbuilding or an on-site communal facility and be conveniently located and screened from view from streets and neighbouring properties.

The group dwellings and those dwellings contained within the residential flat building will all come equipped with more than 8.0 cubic metres of domestic storage space. The same can also be said for all of the apartments contained within the mixed use building.

7.9 Siting

7.9.1 Eastern Boundary

Principle 14 of the Zone provides guidance with respect to the distance between the mixed use building and the eastern boundary of the land.

It advises that:

14 **Buildings (excluding verandahs, porticos and the like) should be set back from the primary road frontage (exclusive of any land required under the Metropolitan Road Widening Act) in accordance with the following parameters:**

Policy Area	Minimum Setback from Primary Road Frontage
High Street (Unley Road) Policy Area 20	No minimum (3.0 metre maximum setback where extended outdoor dining/licensed area only is proposed forward of the building)

The podium of the mixed use building, which consists of the ground and first floor levels, will abut the eastern (primary) boundary of the land, as sought by Principle 14 of Zone.

7.9.2 Southern Boundary

Principle 15 of the Zone provides guidance with respect to the distance between the mixed use building and the group dwellings, and the southern boundary of the land.

It advises that:

15 **Buildings (excluding verandahs, porticos and the like) should be set back from the secondary road frontage or a vehicle access way in accordance with the following parameters:**

Policy Area	Minimum Setback from Secondary Road Frontage
High Street (Unley Road) Policy Area 20	0.0 metres for a distance of 20 metres from the primary road junction and 2.0 metres thereafter

The podium of the mixed use building, which consists of the ground and first floor levels, will abut 22.5 metres of the southern (secondary) boundary of the land.

Whilst this element of the mixed use building will extend 33.0 metres to the west of the T – junction between Unley Road and Opey Avenue, we say that the intent of Principle 15, which is to provide a transition in the scale and intensity of development at the periphery of the Zone, has been satisfied on the basis that the group dwellings will be set back more than 2.0 metres from this particular boundary.

We also note that the adjacent Metro Shopping Centre to the south abuts the southern side of Opey Avenue for roughly the same distance (33.0 metres).

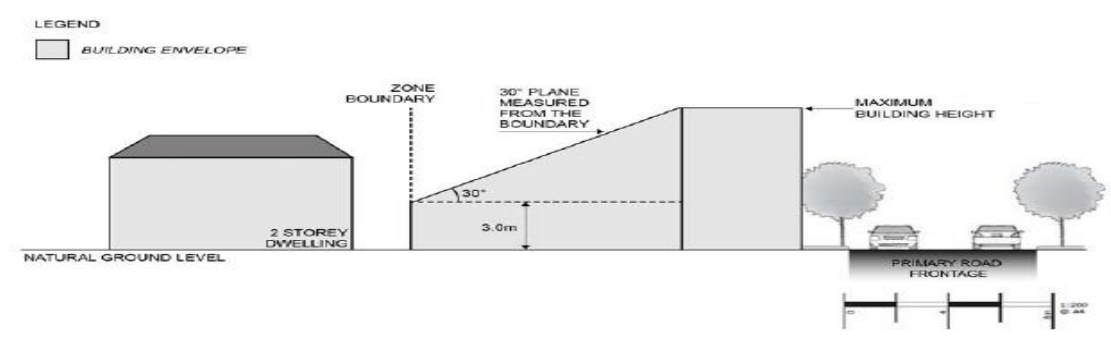
7.9.3 Western Boundary

Principle 13 of the Zone provides guidance with respect to the distance between the mixed use building, the group dwellings and the residential flat building, and the western boundary of the land.

It advises that:

13 **To minimise building massing at the interface with development outside of the Zone, buildings should be constructed within a building envelope provided by a 30 degree plane, measured from a height of 3.0 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



Principle 16 of the Zone also provides guidance with respect to the distance between the mixed use building, the group dwellings and the residential flat building, and the western boundary of the land.

It advises, in part, that:

16 **Buildings (excluding verandahs, porticos and the like) should be set back in accordance with the following parameters:**

Policy Area	Minimum Setback from Rear Boundary
High Street (Unley Road) Policy Area 20	5.0 metres where the land directly abuts an allotment of a different zone. 3.0 metres in all other cases, except where the development abuts the wall of an existing or simultaneously constructed building on adjoining land.

The mixed use building will be set back 26.7 metres to 32.9 metres further than the recommended distance from the western boundary of the land, as sought by Principle 16 of the Zone.

In addition to this, it is clear from Section C at Appendix 1 that no part of this building will extend beyond the confines of the 'interface building envelope', as sought by Principle 13 of the Zone.

Whilst the western façade of Dwellings A and D will be situated less than 5.0 metres away from the western boundary of the land, we do not consider this minor numerical departure to be insurmountable for three reasons.

First, this boundary, when considered in the context of Dwellings A and D, will act as a side boundary, not as a rear boundary. As such, Dwellings A and D need only be set back 3.0 metres from this boundary to comply with Principle 16 of the Zone (the first floor levels of Dwellings A and D are currently set back between 4.7 metres and 4.9 metres from this boundary).

Second, neither Dwelling A nor Dwelling D will extend beyond the confines of the 'interface building envelope'.

Third, neither Dwelling A nor Dwelling D will cast a single shadow over the adjoining residential property to the west from 11:00 am onwards during the winter solstice.

7.9.4 Northern Boundary

Principle 16 of the Zone provides guidance with respect to the distance between the mixed use building and the residential flat building, and the northern boundary of the land.

It advises, in part, that:

16 **Buildings (excluding verandahs, porticos and the like) should be set back in accordance with the following parameters:**

Policy Area	Minimum Setback from Side Boundary
High Street (Unley Road) Policy Area 20	For allotments with a frontage width of: (a) 20 metres or less: No minimum to one boundary but at least 3.0 metres to the other side boundary, with respective setbacks to create an orderly pattern of built form in accord with the desired character and desired consolidated sites in Concept Plan Maps Un/1 to 7; (b) more than 20 metres: 3.0 metres.

The northern façade of the residential flat building will be set back the recommended distance from the northern boundary of the land. So too for that matter will the third, fourth, fifth and sixth floor levels of the mixed use building.

Whilst the ground and first floor levels, and a portion of the second floor level of the mixed use building will abut the northern boundary of the land, we do not consider this to be an issue on the basis that this podium has, for the sake of uniformity, been designed to mirror the height of, and to butt into, the podium of the recently approved building on the adjoining allotment to the north of the land.

7.10 Height

Principle 12 of the Zone provides guidance with respect to the height of all three buildings.

It advises that:

12 **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 Maps Un/1 to 7 and 11, building heights (excluding any rooftop mechanical plant or equipment) should be consistent with the following parameters:**

Policy Area	Minimum Height	Maximum Height
High Street (Unley Road) Policy Area 20	Three storeys (11.5 metres)	Five storeys and up to 18.5 metres

The vertical profile of the group dwellings and residential flat building falls below the relevant minimum quantitative guideline by one storey and up to 5.1 metres.

With that said, we consider this to be an excellent outcome from a planning perspective for two reasons.

First, the two storey scale of these buildings will provide for a reasonable transition and gradation from the seven storey mixed use building to the east to the single storey detached dwelling on the adjoining allotment to the west.

Second, if the vertical profile of these buildings were to be raised, even by just a few hundred millimetres, the proposal would no longer comply with Principle 13 of the Zone, as these buildings would then extend beyond the confines of the 'interface building envelope'. This particular envelope was introduced to temper the scale, mass and intensity of development at the periphery of the Urban Corridor Zone.

The vertical profile of the mixed use building exceeds the relevant maximum quantitative guideline by two storeys and up to 6.05 metres. Whilst this numerical departure is substantial, we do not believe that it detracts from the overall merit of the proposal for the following reasons:

- The vertical profile of the mixed use building is 2.35 metres lower than the vertical profile of the recently approved building on the adjoining allotment to the north of the land.
- The fifth and sixth floor levels will be set back between 28.7 metres and 34.9 metres further than the recommended distance from the boundary that separates the Urban Corridor Zone from the Residential Streetscape (Built Form) Zone.
- It is clear from Section C at Appendix 1 that no part of the mixed use building will extend beyond the confines of the 'interface building envelope', as sought by Principle 13 of the Zone.
- The external walls of the sixth floor level will be heavily recessed and clad with dark materials to ensure that it remains inconspicuous from all angles.
- The off white concrete cubes on the eastern, southern and western sides of the mixed use building have been strategically placed and designed to emphasise the four floor levels between the first and sixth floor levels.
- The habitable room windows and private open spaces associated with the single storey detached dwelling on the adjoining allotment to the west of the land will continue to receive access to direct sunlight from 11:00 am onwards during the winter solstice.
- The mixed use building respects its existing low scale context through the provision of a bluestone podium which complies with Principle 8 of PA 20.
- The land is situated less than 100 metres to the south of the newly created Unley Central Precinct (this Precinct has been designed to accommodate buildings that are substantially taller than the one in question).
- The land upon which the mixed use building will be erected is surrounded on its eastern and southern side by public roads, not residential properties.
- Almost the entire first floor level has been set aside for the provision of 'affordable housing'.
- The DCS for the Zone advises, in part, that "*the potential for buildings within the Zone to penetrate the Adelaide International Airport Obstacle Surface Limitation exists*". The OLS is substantially higher than the tallest component of the mixed use building.

Principle 8 of PA 20 also provides guidance with respect to the height of the podium which belongs to the mixed use building.

It advises that:

8 **Buildings should maintain a pedestrian scale at street level, and on land identified on Concept Plan Maps Un/1, 2A and 2B, should:**

(a) **include a clearly defined podium or street wall fronting the High Street (Unley Road) Policy Area 20 main road and side streets, where appropriate, of a height consistent with traditional one and two storey façades no greater than two storeys or 8.5 metres in height;**

(b) **have levels above the defined podium or street wall set back a minimum of 3.0 metres from that wall.**

The podium of the mixed use building consists of two floor levels and will not, for the most part, exceed 8.5 metres in height, as sought by Principle 8 of PA 20. Furthermore, this podium has, for the sake of uniformity, been designed to mirror the height of, and to butt into, the podium of the recently approved building on the adjoining allotment to the north of the land.

7.11 External Appearance

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

The bluestone tiled podium will give the mixed use building a rather strong, natural and durable base. It will also complement the predominant and traditional rhythm of narrow-fronted commercial tenancies along the western side of Unley Road, as sought by the DCS for PA 20.

The off-white and charcoal tinted concrete panels, powder coated aluminium window frames, stainless steel balustrades and flat roof form will then combine to give the mixed use building's upper floor levels a more contemporary look and feel.

The strategic use and placement of small horizontal and vertical components, like the exposed slab edges and tinted concrete cubes, will also help to accentuate the width of the proposed building whilst reducing its apparent height.

7.12 Heritage

Principle 10 of PA 20 provides guidance with respect to the integrity and spatial setting of heritage places.

It advises that:

10 **The integrity and spatial setting of a heritage place, and positive character façades, be respected by adjacent development providing appropriate setbacks, wall heights, format and features, and new and taller building elements being distinctly further set back and of lightweight subservient appearance.**

The mixed use building will have little to no impact on the integrity or spatial setting of the local heritage listed Cremorne Hotel given the width of Unley Road and the fact that its primary façade has been sited and stepped in accordance with the relevant provisions of the Development Plan.

7.13 Overlooking

Principles 38 and 39 of the 'Residential Development' Module provide guidance with respect to overlooking.

They advise that:

38 Direct overlooking from upper level (above ground floor level) habitable room windows and external balconies, roof patios, terraces and decks to habitable room windows and useable private open space of other dwellings should be minimised through adoption of one or more of the following:

(a) building layout;

(b) location and design of windows, balconies, roof patios and decks;

(c) screening devices;

(d) adequate separation distances;

(e) existing landscaping and supplementary screen tree planting.

39 To maintain a reasonable level of visual privacy to adjacent residential properties, the following measures are sought:

(a) orientate and stagger windows and upper level viewing areas to prevent direct views into adjoining indoor and outdoor living areas;

(b) obscure viewing by raising window sills or incorporating obscure glass windows to a height of at least 1.7 metres above floor level;

(c) use permanently fixed external screening devices such as screens, fences, wing walls, panels, planter boxes or similar measures adequate to restrict 120 degree views;

(d) provide a separation distance of 15.0 metre radius to windows of habitable rooms in potentially impacted dwellings and 30.0 metre radius to private open space as described in the Figures below;

(e) incorporate plants capable of providing and seasonally sustaining a privacy screen.

In order to minimise direct views of the adjacent habitable room windows and/or private open spaces to the north and west of the land:

- all of the upper level window frames on the northern and western sides of Dwellings A, B, C, D, E and F will either commence at a height of not less than 1.8 metres above the finished floor level or be fitted with obscure glass to an equivalent height;
- the balustrades which belong to the balconies on the northern side of the mixed use building will be fitted with obscure glass to a height of 1.5 metres above the finished floor level (the same can also be said for the balustrades which belong to the balconies on the western side of this building even though none of these balconies are situated within a 30.0 metre radius of the western boundary of the land); and
- the upper level window frames on the northern side of the mixed use building will either commence at a height of not less than 1.8 metres above the finished floor level or be fitted with obscure glass to an equivalent height.

7.14 Overshadowing

Principle 41 of the 'Residential Development' Module provides guidance with respect to overshadowing.

It advises that:

41 **Development should allow direct winter sunlight access to adjacent residential properties and minimise the overshadowing of:**

(a) living room windows, wherever practicable;

(b) the majority of private open space areas, communal open space and upper level balconies that provide the primary open space provision;

(c) roof areas, preferably north facing and suitable for the siting of at least four solar panels of any dwelling;

or where such affected areas are already shaded, the additional impact should not significantly worsen the available sunlight access.

The extent of shadow that is likely to be cast by all three buildings at 9:00 am, 12:00 pm and 3:00 pm on the winter solstice is captured across the shadow study diagrams at Appendix 1.

It is clear from these diagrams that:

- the apartments within the recently approved building on the northern side of the land will not be affected by this development due to the angle of the sun;
- most of the shadows will fall across the surrounding road network and the adjacent commercial premises to the east and south of the land; and
- the habitable room windows and private open spaces associated with the single storey detached dwelling on the adjoining allotment to the west of the land will continue to receive access to direct sunlight from 11:00 am onwards during the winter solstice.

For these reasons, and in acknowledgement of the fact that most other metropolitan development plans call for north facing windows and private open spaces to receive access to two to three hours of direct sunlight on the winter solstice, we say that neither the extent nor the duration of these shadows is unreasonable.

7.15 Noise

Mr James Tudor of Vipac was commissioned by the proponents to assess and comment on the acoustic performance of the mixed use building.

Mr Tudor's assessment and subsequent recommendations can be found at Appendix 7 and, if followed, will ensure that this building complies with all of the relevant criteria and that it does not adversely affect the occupant/s of the nearest 'sensitive receiver'.

Accordingly, should the State Commission Assessment Panel be of the mind to grant development plan consent, the proponents would not object to the conversion of Mr Tudor's recommendations into conditions which can then be monitored and enforced.

7.16 Access

The DCS for the Zone provides guidance with respect to access.

It advises, in part, that "*restricted and consolidated vehicle access points will be available and access will be mainly from secondary road frontages, limited rear access lanes and through-site integrated and shared rights-of-way*".

All three of the existing crossovers will be closed and subsequently replaced by a single, 6.1 metre wide crossover on the northern side of Opey Avenue.

The new crossover has been designed to facilitate simultaneous two-way movements and to allow the common driveway to connect into the southern end of the private roadway which was approved as part of DA M008.

7.17 Parking

7.17.1 Motor Vehicles

Mr Thomas Wilson of Cirqa was commissioned by the proponents to review and report on the proposed parking arrangements for motor vehicles.

Whilst Mr Wilson's findings can be found at Appendix 5, it is important to note that:

- the proposal, based on Cirqa's calculation methods, generates a theoretical demand for 112 spaces, including 12 spaces for Dwellings A through to F, 59 spaces for the apartments on the first, second, third, fourth, fifth and sixth floor levels of the mixed use building, 16 spaces for visitors and 25 spaces for the commercial tenancies on the ground floor level of the mixed use building;
- the theoretical demand generated by Dwellings A through to F and the commercial tenancies on the ground floor level of the mixed use building will be met;
- the theoretical demand generated by the apartments on the first, second, third, fourth, fifth and sixth floor levels of the mixed use building will be exceeded by six spaces;
- there will be a shortfall, as far as visitor parking is concerned, of two spaces; and
- the aforementioned shortfall could, according to Mr Wilson, be readily accommodated by the surrounding road network.

7.17.2 Bicycles

Mr Wilson was also commissioned by the proponents to review and report on the proposed parking arrangements for bicycles.

Whilst Mr Wilson's findings can be found at Appendix 5, it is important to note that:

- the proposal generates a theoretical demand for 53 spaces; and
- the number of spaces that are proposed to be provided within the confines of the land (87 spaces) exceeds the theoretical demand by 34 spaces.

7.18 Traffic

Mr Wilson was also commissioned by the proponents to consider and report on the impact that this development is likely to have on the surrounding road network.

Whilst Mr Wilson's findings can be found at Appendix 5, it is important to note that:

- the proposal is expected to generate 65 trips during the morning peak hour and 73 trips during the evening peak hour; and
- the T – junction between Unley Road and Opey Avenue is, based on Cirqa's analyses, expected to continue to operate at a satisfactory level upon completion and occupation of all three of the proposed buildings.

7.19 Stormwater

Principle 11 of the 'Natural Resources' Module provides guidance with respect to stormwater.

It advises that:

11 **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.**

The preliminary stormwater assessment at Appendix 6 confirms that this development can and will be designed to ensure that the post-development discharge flows do not exceed the pre-development discharge flows. Accordingly, the carrying capacity of the existing stormwater drainage network is not expected to be overloaded by this development.

7.20 Waste

Principles 26 and 27 of the 'Medium and High Rise Development' Module provide guidance with respect to waste.

They advise that:

26 **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.**

27 **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.**

The 'waste room' on the ground floor level of the mixed use building has been designed to accommodate the requisite number of bins and to allow these bins to be rinsed internally on a regular basis. It will also be concealed from Unley Road and Opey Avenue by the commercial tenancies on the ground floor level of the mixed use building, as sought by Principle 26.

The bins will be collected, emptied and returned by a private waste contractor via the common driveway, as sought by Principle 27.

7.21 Wind

Ms Sophie Lamande of Vipac was commissioned by the proponents to consider and report on the wind-related impacts of this development.

Whilst Ms Lamande's findings can be found at Appendix 8, it is important to note that:

- the wind conditions along the common driveway and the surrounding footpaths are expected to fall within the recommended 'walking criteria';
- the wind conditions in and around the landscaped entry plaza are expected to fall within the recommended 'standing comfort criteria';
- the wind conditions in and around the large communal space at the northern end of the second floor level of the mixed use building are expected to fall within the recommended 'walking comfort criteria' and could well satisfy the more stringent 'standing or sitting comfort criteria'; and
- the wind conditions in and around the communal piazza on the second floor level of the mixed use building are expected to fall within the recommended 'walking comfort criteria' and could well satisfy the more stringent 'standing or sitting comfort criteria'.

7.22 Tree Damaging Activity

Principles 2 and 8 of the 'Regulated and Significant Trees' Module provide for the removal of regulated and significant trees respectively.

They advise that:

2 A regulated tree should not be removed or damaged other than where it can be demonstrated that one or more of the following apply:

(a) the tree is diseased and its life expectancy is short;

(b) the tree represents a material risk to public or private safety;

(c) the tree is causing damage to a building;

(d) development that is reasonable and expected would not otherwise be possible;

(e) the work is required for the removal of dead wood, treatment of disease, or is in the general interests of the health of the tree.

8 Significant trees should be preserved and tree damaging activity should not be undertaken unless:

(a) in the case of tree removal;

(iv) it is demonstrated that reasonable alternative development options and design solutions in accord with Council-wide, Zone and Area provisions have been considered to minimise inappropriate tree-damaging activity occurring; or

In order for the proposal to progress, three 'regulated' trees, two of which are 'significant', will need to be removed from the land. Two 'non-regulated' trees on the northern side of Opey Avenue will also need to be removed and subsequently replaced with six jacaranda trees.

Whilst all three of the trees are in reasonable condition, the proponents' arborist has recommended that they be removed on the basis that:

- they would, if left untouched, significantly impede a form of development that is both reasonable and expected when considered in the context of the Zone's aspirations and the previous approval over this parcel of land; and
- if the development were to be designed around the structural root and tree protection zones, the siting of the mixed use building would be completely at odds with the intent and general direction of the Zone (it would also lessen the degree of activation along the ground floor level).

As an aside, it is important to keep in mind that these trees were approved for removal by the then Development Assessment Commission as part of DA M003.

7.23 Landscaping

The DCS for the Zone provides guidance with respect to landscaping.

It advises, in part, that "*well-designed landscaping will assist to visually soften large building façades, screen and buffer parking/service areas/zone interface areas, and provide amenity, biodiversity and micro-climate benefits*".

All four of the mixed use building's façades will be softened through the provision of trellised vines and potted plants, the latter of which will also serve to improve the amenity of the private and public open spaces, and to provide shade during the summer months.

The interface between Dwellings A through to F and the detached dwelling on the adjoining allotment to the west of the land will also be softened through the provision of evergreen trees.

Principle 23 of the 'Medium and High Rise Development' Module also provides guidance with respect to landscaping.

It advises that:

23 **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/Deep Soil Zones
> 1,500 square metres	7.0 percent of site area	6.0 metres	One large or medium tree/60 square metres of deep soil

The deep soil zones associated with this development combine to account for approximately 7.6 percent of the overall area of the land, as sought by Principle 23. Furthermore, the communal piazza on the second floor level of the mixed use building will have a minimum dimension of 6.9 metres and an area of 71.8 square metres or thereabouts.

7.24 Energy Efficiency

Principles 1 and 3 of the 'Energy Efficiency' Module provide guidance with respect to the environmental performance of the mixed use building.

They advise that:

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

3 **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 maximises exposure to direct sunlight.

The apartments on the eastern and western sides of the first floor level of the mixed use building will receive access to direct sunlight during the morning and afternoon respectively, and the apartments on the second, third, fourth, fifth and sixth floor levels of the mixed use building will receive access to direct sunlight for a substantial portion of the day courtesy of the central void.

In the event that solar panels are affixed to the roof atop the mixed use building, they should be able to capture sunlight for most of the day due to the orientation and fall of the roof, and the fact that none of the existing buildings within the vicinity of the land are close or tall enough to pose a problem as far as overshadowing is concerned.

7.25 Passive Surveillance

Objective 5 of the 'Medium and High Rise Development' Module calls for "*development that enhances the public environment, provides activity and interest at street level and a high quality experience for residents, workers and visitors by improving public safety through passive surveillance*".

The siting, orientation and design of the mixed use building, the active nature of the ground floor level and the provision of unobscured balconies will combine to facilitate passive surveillance of the common driveway and surrounding road network. This, in turn, should minimise the threat of anti-social behaviour in and around the site of this development.

8. CONCLUSION

We have concluded from our assessment of the proposal that it is worthy of development plan consent.

In support of our conclusion, we wish to reiterate that:

- five contiguous allotments will be amalgamated and subsequently redeveloped in a coordinated manner, as sought by the DCS for PA 20;
- all three of the proposed uses (dwellings/apartments, residential flat buildings and shops) are envisaged within this part of the Zone;
- the spatial arrangement of those uses within the mixed use building is consistent with the DCS for PA 20 and Objective 2 of the Zone;
- the density of this development comfortably exceeds the relevant minimum quantitative guideline;
- the siting and vertical profile of the mixed use building's podium complies with Principle 8 of PA 20;
- the siting, height and appearance of all three of the proposed buildings is acceptable;
- the mixed use building will contain a variety of apartments;
- more than 15.0 percent of the apartments on the first floor level of the mixed use building will be marketed as 'affordable housing';
- all of the dwellings and apartments will come equipped with more than the recommended amount of private open space;
- all of the apartments will come equipped with more than the recommended amount of domestic storage space;
- none of the adjacent habitable room windows or private open spaces will be overlooked or overshadowed to an unreasonable degree;
- there will be an adequate amount of parking for bicycles and motor vehicles;
- the T – junction between Unley Road and Opey Avenue is, based on Cirqa's analyses, expected to continue to operate at a satisfactory level upon completion and occupation of all three of the proposed buildings;
- the carrying capacity of the existing stormwater drainage network is not expected to be overloaded by this development;
- waste will be stored and disposed of in an efficient and environmentally sound manner;
- the curtilage of all three buildings and the central piazza on the second floor level of the mixed use building will be neatly landscaped; and
- all three buildings will be energy efficient for years to come.

We also wish to highlight that the proposal is entirely consistent with Concept Plan Map Un/2A of the Development Plan, as the common driveway has been designed to connect into the private roadway associated with the recently approved development to the north of the land, and the existing crossover on the western side of Unley Road will be closed.

HYDE PARK PLACE

LUXURY RESIDENCES

DESIGN REPORT


bfc
COFFEE

248 UNLEY ROAD, HYDE PARK

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CITIFY


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PROPOSAL

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PROPOSAL

PROJECT INFORMATION

Summary

Citify, Bert Farina Constructions and Gemma Lea have prepared this report to demonstrate for development assessment how this proposal responds to various design requirements and development objectives. Also outlined is how this proposal brings an incredible level of amenity, activation and equity to the streetscape and area.

Details

Street frontages: Unley Road & Opey Avenue

Site area: 2849m²

Deep soil zones: 216m² - 7.58%

Site coverage: 2209m² - 77.53%

Overall total building height: 24.55m (including lift overrun)

Current crossovers: 3

Proposed crossovers: 1

Team

DEVELOPER: Citify & BFC

PROJECT MANAGER: Citify

BUILDING DESIGN: Gemma Lea

BUILDER: Bert Farina Constructions

TOWN PLANNER: Future Urban Group

TRAFFIC ENGINEER: Cirqa

SERVICES ENGINEER: Lucid Consulting

WASTE ENGINEER: Colby Industries

WIND & ACOUSTIC ENGINEER: Vipac Engineers & Scientists

STORMWATER & CIVIL ENGINEER: TBA

BUILDING CERTIFIER: Katnich Dodd

Description

This proposal comprises a seven-storey mixed-use building including basement and ground floor car-parking, ground level and 1st floor commercial tenancies, communal piazza, pool & gym, and six levels of apartments. It also includes six two-storey townhouses to the west of the apartment building, facing Opey Avenue, to retain amenity to surrounding residential properties.

Yield

- 600m² ground floor retail space
- 203m² first floor office/commercial space
- 225m² communal area (including pool, gym and level 2 garden)
- 63 x residential apartments from first to sixth floors
- 12 x studio apartments
- 3 x 1 bedroom apartments
- 25 x 2 bedroom apartments
- 19 x 3 bedroom apartments
- 4 x 3 bedroom penthouses
- 6 x two-storey 3 bedroom townhouses fronting Opey Avenue, with 12 x car parks
- 90 x basement private car parks for residents and tenancy owners/lessee's
- 11 x ground floor public car parks for visitors

PROPOSAL

DEVELOPMENT SUMMARY

COMMERCIAL TENANCIES

		Net lettable area (m²)
Ground floor	G.01	129.89
	G.02	366.64
	G.03a	47.18
	G.04a	29.55
	G.05a	27.3
First floor	G.03b	68.43
	G.04b	39.86
	G.05b	94.67
	TOTAL	**803.52** m²

RESIDENTIAL APARTMENTS

	TYPE A	TYPE B	TYPE C	TYPE D	TYPE E	TYPE F	TYPE G	TYPE H (STUDIO)	TYPE I	PENTHOUSE NORTH	PENTHOUSE EAST	PENTHOUSE SOUTH	PENTHOUSE WEST	
Bedrooms	1	2	2	3	2	3	3	1	3	3	3	3	3	
Bathrooms	1.5	2	2	2	1	2	3	1	2	3	3	3	3	
Car parks	1	1	1	2	1	2	2 ??		2	2	2	2	2	
Area internal (m²)*	54.59	80.4	73.25	90.06	67.02	93.99	121.54	44.57	89.78	153.62	155.21	160.98	167.28	
Area - balconies (m²)*	8.04	12.7	12.19	14.37	13.92	17.15	13.47	7.49	16.83	74.96	82.97	121.15	119.14	
Total (m²)*	62.63	93.1	85.44	104.43	80.94	111.14	135.01	52.06	106.61	228.58	238.18	282.13	286.42	
First floor	0	0	0	0	2	0	0	12	1	0	0	0	0	**15**
Second floor	0	1	2	2	2	2	1	0	0	0	0	0	0	**10**
Third floor	1	2	2	2	2	2	0	0	0	0	0	0	0	**11**
Fourth floor	1	2	2	2	2	2	1	0	0	0	0	0	0	**12**
Fifth floor	1	2	2	2	2	2	0	0	0	0	0	0	0	**11**
Sixth floor	0	0	0	0	0	0	0	0	0	1	1	1	1	**4**
TOTAL FOR EACH TYPE	**3**	**7**	**8**	**8**	**10**	**8**	**2**	**12**	**1**	**1**	**1**	**1**	**1**	**63**

TOWNHOUSES

	4a OPEY AVE	4b OPEY AVE	4c OPEY AVE	4d OPEY AVE	4e OPEY AVE	4f OPEY AVE
Area internal (m²)	156.95	164.24	164.24	155.66	165.77	165.87
Area - POS (m²)	44.93	36.62	36.62	77.86	42.47	40.71
Total (m²)	**201.88**	**200.86**	**200.86**	**233.52**	**208.24**	**206.58**

STORAGE CALCULATIONS (m²)

Apartment type	Pantry	Linen	CPD	Over bonnet	Total	Robes	Total Inc. Robes
TYPE A	1.458	0	0.648	5.8	**7.906**	5.184	**13.09**
TYPE B	1.458	1.944	0	5.8	**9.202**	10.044	**19.246**
TYPE C	1.458	0	0.486	5.8	**7.744**	8.586	**16.33**
TYPE D	1.458	2.268	0	5.8	**9.526**	11.988	**21.514**
TYPE E	0	2.592	0	5.8	**8.392**	5.832	**14.224**
TYPE F	0	2.106	0	5.8	**7.906**	13.932	**21.838**
TYPE G	1.458	1.62	0	5.8	**8.878**	9.882	**18.76**
TYPE H	0.972	1.296	0	5.8	**8.068**	2.916	**10.984**
TYPE I	0	2.268	0.972	5.8	**9.04**	9.72	**18.76**
PENTHOUSE NORTH	7.344	8.772	1.224	5.8	**23.14**	24.48	**47.62**
PENTHOUSE EAST	7.752	1.632	1.836	5.8	**17.02**	24.276	**41.296**
PENTHOUSE SOUTH	10.2	3.468	4.08	5.8	**23.548**	26.112	**49.66**
PENTHOUSE WEST	9.996	5.1	2.244	5.8	**23.14**	24.276	**47.416**

* THERE ARE SOME VARIANCES IN SQAURE METRES WITH EACH APARTMENT TYPE, PARTICULARLY TYPE H WHICH HAS THE SAME LAYOUT BUT VARYING SIZES - REFER TO "BUILDING AREAS" SHEET FOR EXACT AREAS

2

CAPABILITY

Citify's projects

Bert Farina Construction's projects

CITIFY'S PROJECTS

Citify is an SA-based property developer committed to creating a legacy through value and design-driven projects.

Focusing in high-demand areas and producing enduring architecture, citify strengthens the prosperity of inner metropolitan communities.

They live & breathe their projects, embrace ideas, creativity & collaborate those they partner with.

THE WILLCOX - 117 PROSPECT RD, PROSPECT - CONSTRUCTION TO COMMENCE AUGUST 2018

BELFORD ON THE PARK - 60 BELFORD AVE, PROSPECT - UNDER CONSTRUCTION

6 TOWNHOUSES - MORPHETT VALE - CONSTRUCTION COMPLETED 2016

5 TOWNHOUSES - MORPHETT VALE - COMPLETED 2017

BERT FARINA CONSTRUCTIONS' PROJECTS

Bert Farina Constructions is a professional building contractor specialising in high-quality domestic, commercial and general construction.

From concept, design and planning for building works, through to completion of a project, their focus is to make it easy for clients and home owners.

With a stellar record for other quality projects in Adelaide, you know you can trust BFC to get the job done.

CANOPY @ 44 - 44 CHURCHILL RD, PROSPECT - CONSTRUCTION COMPLETE 2017 - WINNER "PROSPECT DESIGN AWARD 2017"

PROSPECT GREEN - 2A RICHMAN AVE, PROSPECT - CONSTRUCTION COMPLETE 2017

76 WOOD AVE, RIDLEYTON - 24 TOWNHOUSES - CONSTRUCTION COMPLETE 2018

THE WINSTON - 188 CHURCHILL RD, PROSPECT - CONSTRUCTION COMPLETE 2017

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CONTEXT

Site analysis

Surrounding sites

Views of the site

Views from the site

Materials and themes

Neighbouring development proposal

CONTEXT

CONTEXT PLAN

LOCATION

The subject site at 248 unley road, hyde park is sitting on the corner of the suburb Hyde Park & Unley, and on the corner of Opey Avenue and Unley Road.

It's within walking distance to Unley Shopping Centre, the Unley Road retail strip and King William Road's boutique retail and cafe offerings.

Unley and Hyde Park have always been desirable locations to live and work due to the proximity to the city, the hills to the south and east, and beach to the west.

ZONING

The site is approximately 2849m² and sits in the urban corridor zone in the High Street policy area. The western boundary of the site sits at the zone boundary between Urban Corridor and the Residential zone.

SIMILAR RECENT APPLICATIONS

246 Unley Road, Unley - March 2018 - 7 storeys
244-252 Unley Road, Unley - Previous expired application - 7 storeys
1 George St, Parkside - 9 storeys

CONTEXT

SURROUNDING SITES

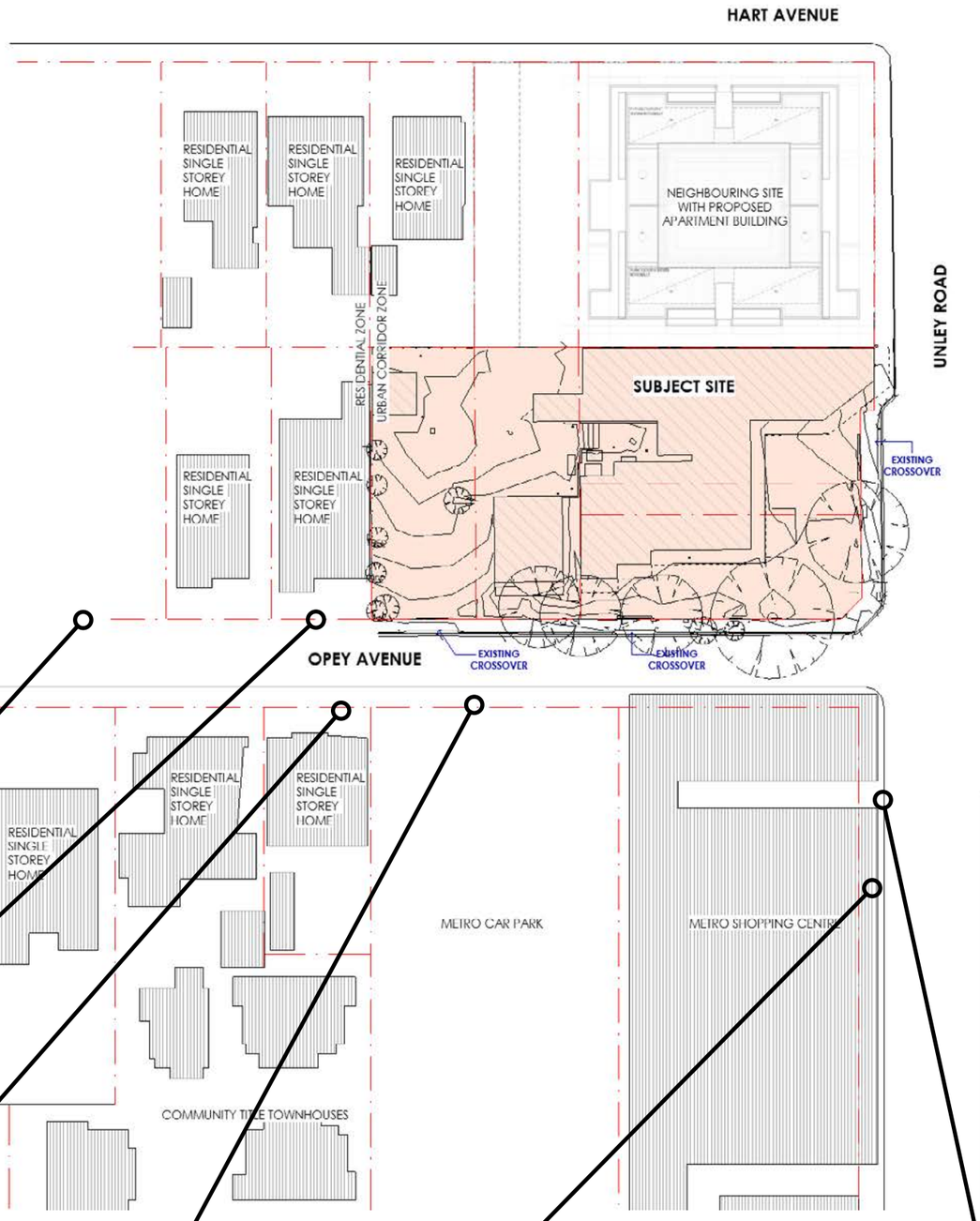
URBAN CORRIDOR ZONE

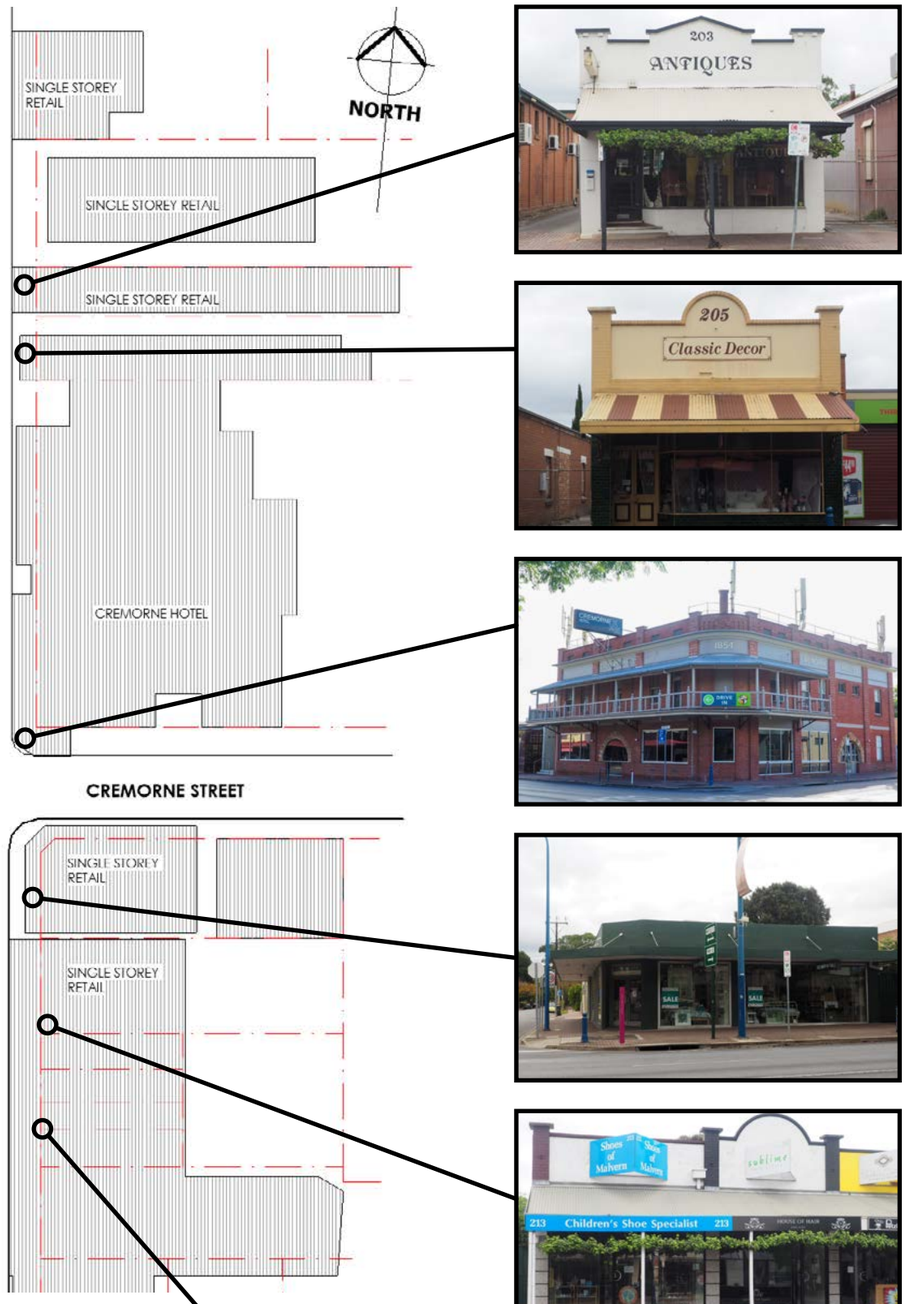
The built form in the vicinity of the subject site along Unley Road is single & double storey commercial/retail sites with varying parapets & sloped awnings. The Cremorne Hotel, the Oxford corner building & other similar two storey commercial sites are two storey with canopies over the footpath acting as verandahs above on the second storey.

The area has a combination of modern buildings - for example Unley Shopping Centre & Metro Shopping Centre - & traditional retail frontages with glazed frontages, varying parapets featuring columns, stylobates & gable peaks.

RESIDENTIAL ZONE

Opey Avenue transitions from The Cremorne Plaza (at the subject site 248 Unley Road), Metro's building & car park from Unley Road, to solely single storey residential homes. Predominantly they are victorian villas & cottages in sandstone, bluestone & red brick.





CONTEXT

VIEWS OF THE SITE

1. View of the site frontage on Unley Road

2. View of the site fronntage on Opey Avenue

3. View of the site on Opey Avenue where townhouses are proposed

4. Close up view of existing building on corner of Unley Road and Opey Avenue

CONTEXT

VIEWS FROM THE SITE

1. View from the site looking south on Unley Road

2. View from the site looking west on Opey Avenue

3. View from the site looking north on Unley Road

4. View looking directly east on Unley Road

CONTEXT

MATERIALS & THEMES

THEMES

The area is full of repeating details such as columns, stylobates and awning-style canopies over the footpaths.

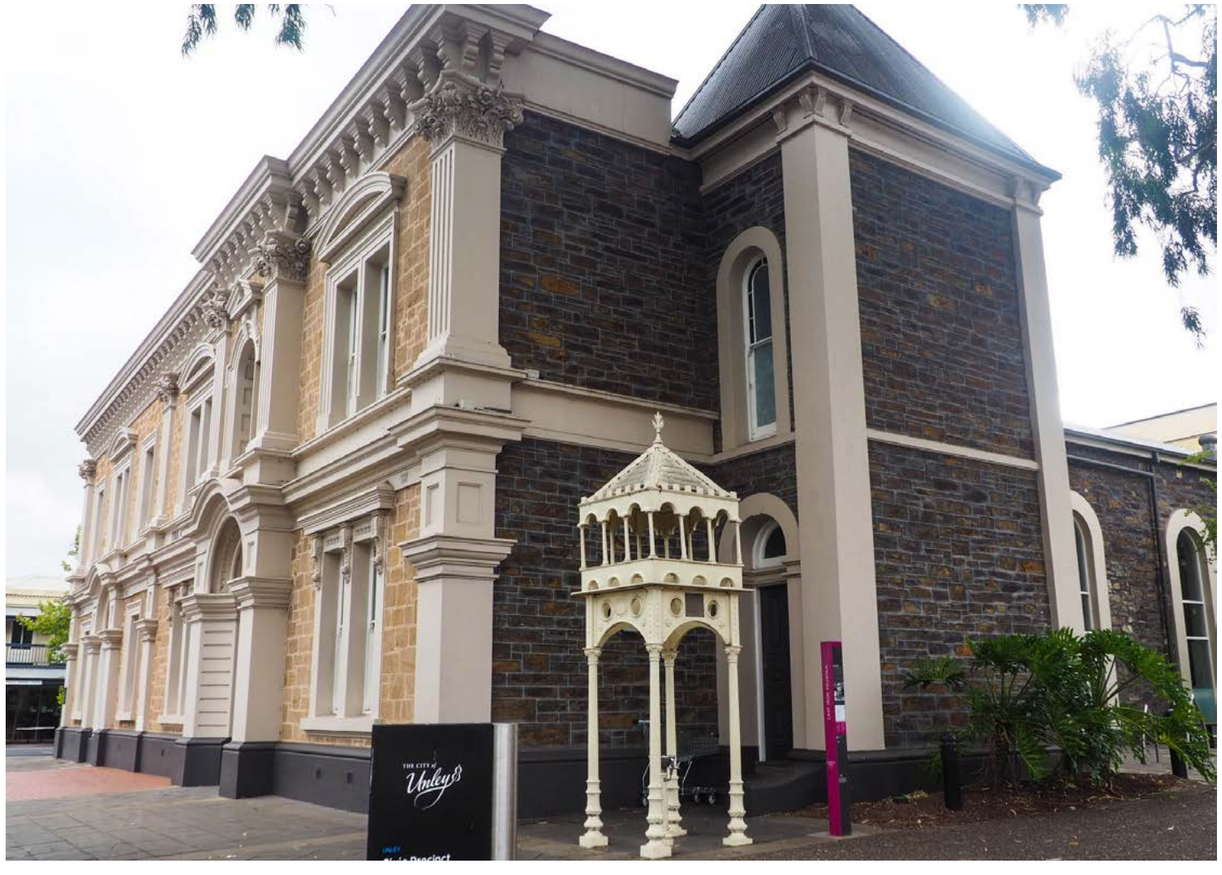
The frontages to larger buildings such as the Oxford Corner and Cremorne Hotel are stylised by a uniform and repeating design, providing a solid design premise for a modern podium for the Ubran Corridor Zone.

The frontages to smaller buildings have large glazed frontages broken up by tiled or stone columns which continue above the awnings. The awnings themselves commonly have planting vines climbing along them and signage.

Whilst a more modern building, the Unley Shopping Centre features a double height entry, similar also to Unley Council's double height glass entry.

MATERIALS

The area is full of traditional buildings predominantly constructed in bluestone, red brick and sandstone. some small frontages have tiled walls in reds, greens and blacks, but the main theme is neutral and natural materials with plenty of green planting and climbing vines.



CONTEXT

MATERIALS & THEMES

CONTEXT

NEIGHOURING DEVELOPMENT PROPOSAL

FORM

246 Unley Road, Unley, is a seven storey building with a two level podium and a slightly recessed taller form with balconies set in front of the building line.

Its penthouse level is set back again to be predominantly invisible from the ground floor and reduce the bulk of the building.

This proposal has taken careful consideration of SCAP's, ODASA's and Unley Council's comments and feedback.

MATERIALS

This proposal uses sandstone stonework to the podium with clean white lines and steelwork to levels above and generous planting climbers which doubles up in concealing air conditioning condensers.

The building uses plenty of glazing in similar style to the character of the streetscape.

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DESIGN RESPONSE

Objectives & opportunities

Massing - approach

Massing - rationale

Inspiration - apartment buildings

Materials

Inspiration - townhouses

Townhouses concept

Interior design - "Hamptons Luxe" collection

Interior design - "Manhattan Modern" collection

Interior design - entrance lobby inspiration

Environmental design solutions - natural light

Environmental design solutions - cross ventilation

Shadow study - winter solstice

Shadow study - summer solstice

Site movement & cpted

DESIGN RESPONSE

PROPOSAL OBJECTIVES & SITE OPPORTUNITIES

KEY CONSIDERATIONS

1. Carefully consider, when massing, dwellings to west in Residential zone on Opey Ave & Hart Ave with regards to privacy, overshadowing & retention of amenity.

2. Respond to existing character and themes of the surrounding area whilst creating something contemporary and timeless.

3. Ensure sufficient car parking for demand, consolidate site access, and remove all visible car parking from Unley Road and Opey Avenue to restore the character of the streetscape.

OPPORTUNITIES

1. Important corner site, highly visible along Opey Avenue and Unley Road

2. High amenity of site due to proximity to all shopping, entertainment, education and transport means this site will be desirable, solidifying the success of the application to be constructed and occupied.

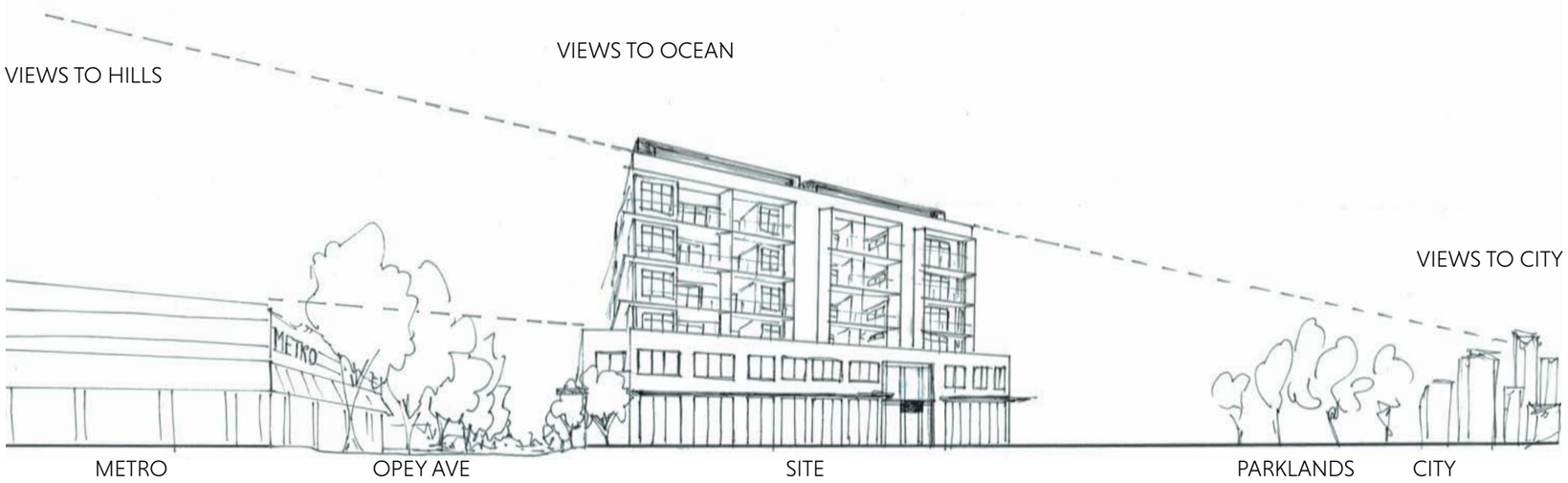
3. Draw upon the historical context of the area and give it a modern twist.

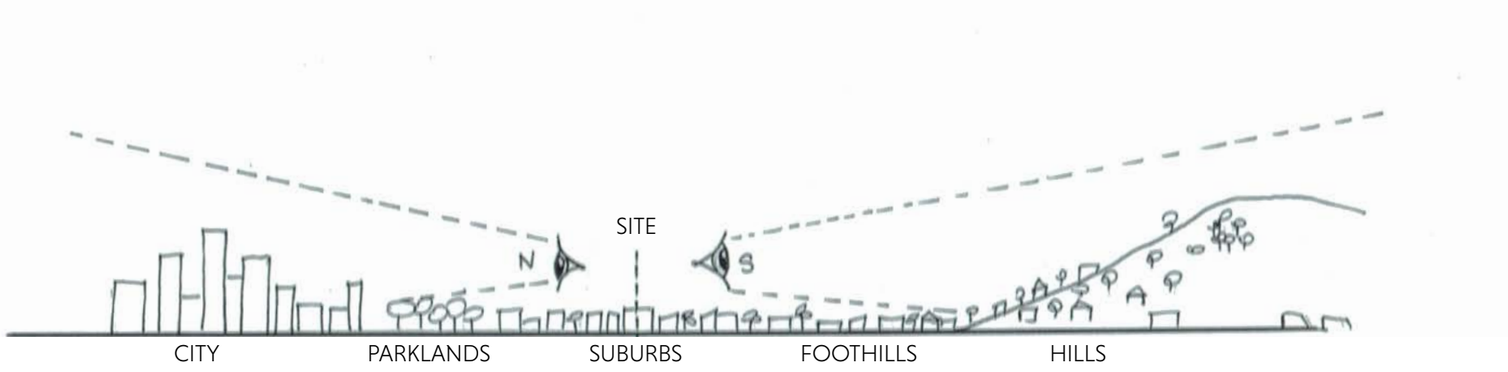
CONSTRAINTS

1. Noise pollution from Unley Road - needs to be considered in design

2. Maintain height interface and privacy to residential zone

3. Car parking should be hidden where possible.





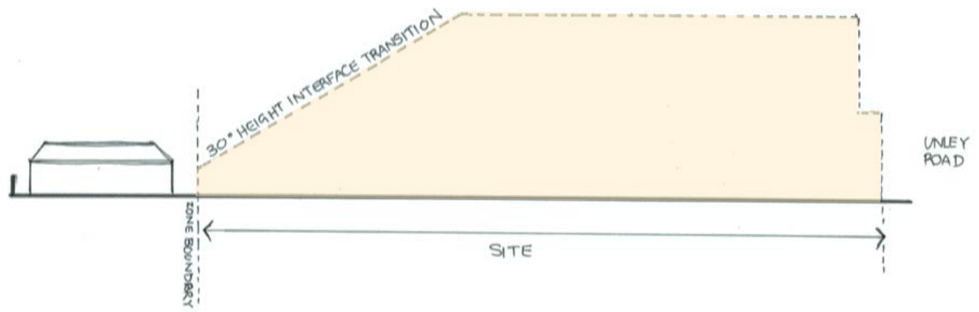
DESIGN RESPONSE

MASSING APPROACH

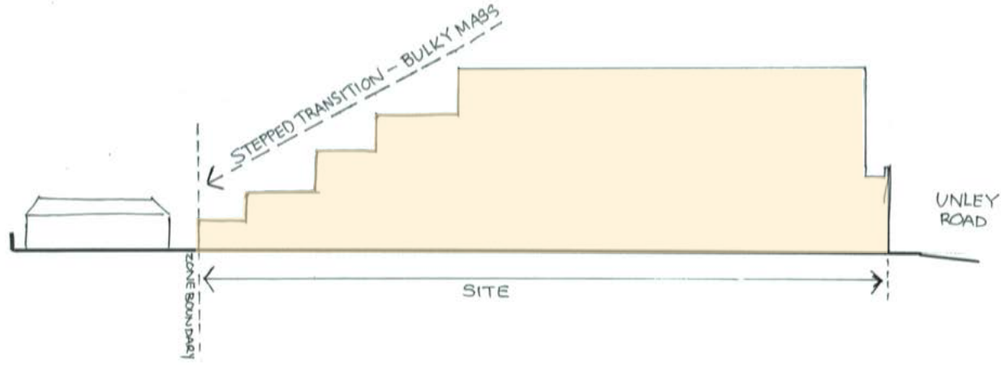
THE FOLLOWING APPROACH HAS BEEN ADOPTED BY THIS PROPOSAL:

- Consolidation of the building height towards Unley Road (east of the site) and away from the residential zone
- Two level podium to the base of the building to respond to the scale of the existing streetscape.

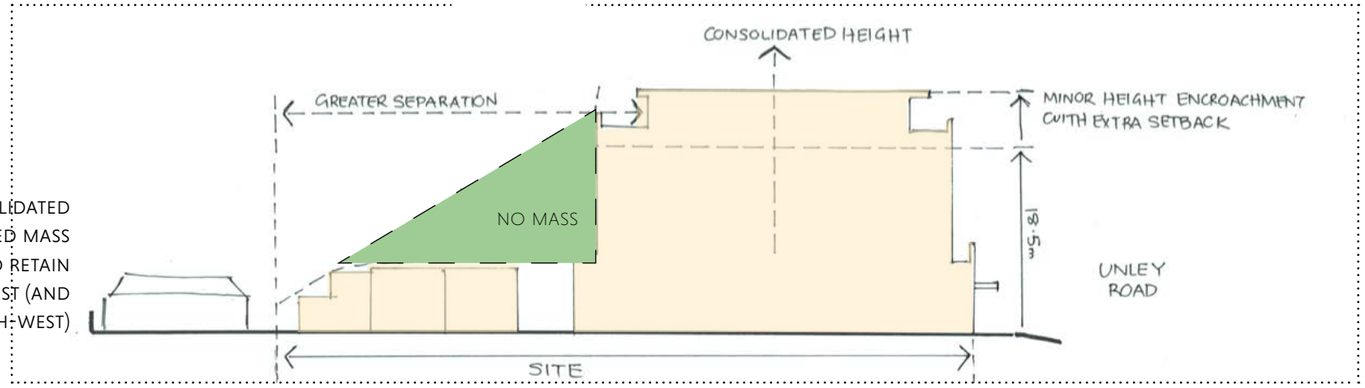
SITE OPPORTUNITY - ALLOWABLE ENVELOPE



BUILDING FORM OPTION - STEPPED TRANSITION, WHICH CREATES A BULKY MASS THAT REDUCES RESIDENTIAL AMENITY



BUILDING FORM OPTION - CONSOLIDATED BUILDING HEIGHT WITH REDUCED MASS CLOSER TO RESIDENTIAL ZONE TO RETAIN AMENITY AND PRIVACY TO THE WEST (AND NORTH-WEST)



DESIGN RESPONSE

MASSING RATIONALE

1. PODIUM

A TWO-LEVEL POIUM UP TO 8.5M HIGH, PREDOMINANTLY ON THE STREET BOUNDARY WITH PLENTY OF GLAZING AND AWNINGS OVER THE FOOTPATH

2. LIGHT WELL

ACCESS TO PLENTY OF LIGHT AND NATURAL VENTILATION THROUGHOUT ALL APARTMENTS IN THE FORM OF A LARGE LIGHT WELL VOID.

3. SET BACK ABOVE PODIUM

LEVELS ABOVE PODIUM TO BE SET BACK FROM BOUNDARY/PODIUM AND BE DISTINCT IN DESIGN WITH RESPECT TO COLOURS AND MATERIALS.

4. TOP LEVEL ADDITIONAL SETBACK

WITH ENCROACHMENT IN BUILDING HEIGHT AN EXTRA SETBACK HAS BEEN ACCOMODATED TO THE PENTHOUSE LEVEL.

5. BASEMENT CAR PARKING

TO RESPECT THE DEMANDS FOR CAR PARKING A DOUBLE BASEMENT HAS BEEN PROPOSED TO ACCOMODATE THIS AND NOT ADD ANY STRESS TO EXISTING INFRASTRUCTURE.

6. BALCONIES SET INWARD

TO REDUCE BULK OF THE BUILDING ALL BALCONIES ARE SET IN AND NOT SET IN FRONT OF THE BUILDING LINE.

1. PODIUM

2. LIGHT WELL

3. SET BACK ABOVE PODIUM

4. TOP LEVEL ADDITIONAL SETBACK

5. BASEMENT TO ACCOMODATE CAR PARKING REQUIREMENTS

6. BALCONIES SET IN INSTEAD OF DECREASING SETBACK

DESIGN RESPONSE

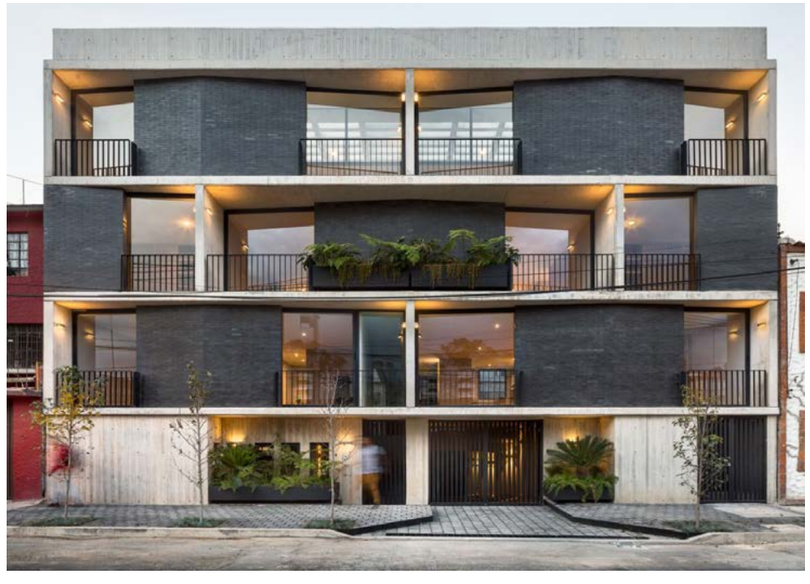
INSPIRATION - APARTMENT BUILDING

CONCEPT DESIGN PRINCIPLES

- Two level podium on boundary with awnings over footpath - linking back to the Cremorne Hotel & Oxford Corner
- Repeating and distinct vertical elements - linking back to traditional columns
- Recessed balconies to reduce visual bulk and increase setback
- Maximise on view opportunities whilst retaining privacy to surrounding private open space.

MATERIALS

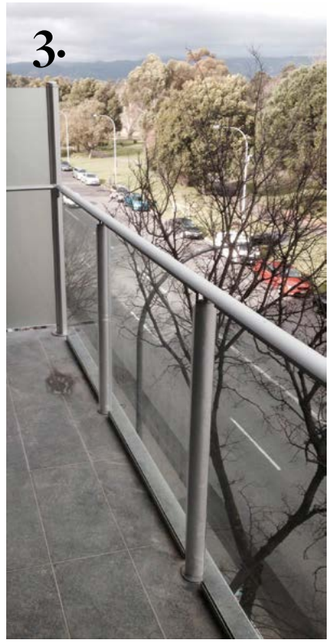
- Natural materials and netural colours - linking back to materials in existing streetscape character
- Bluestone tiled podium with largely glazed commercial frontages
- White and charcoal concrete above the podium for a simple and distinct style
- Planting to entrance lobbies, balconies and six recessed walls with climbers growing on a wire lattice.

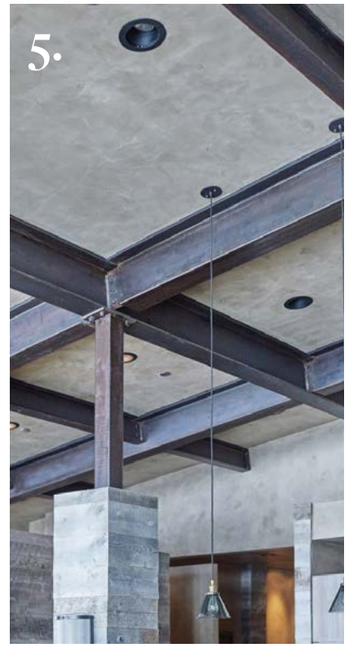


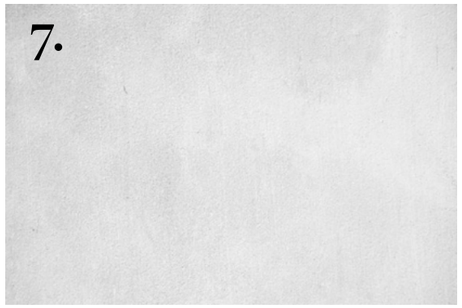
DESIGN RESPONSE

MATERIALS

1. Blue stone
2. Cedar eves to footpath canopies and penthouse awnings
3. Clear glass balustrade
4. Double glazed aluminum doors in black satin
5. Feature steel work
6. Charcoal concrete
7. White concrete







DESIGN RESPONSE

INSPIRATION - TOWNHOUSES

CONCEPT DESIGN PRINCIPLES

1. Create a generous transition between the Urban Corridor and Residential zones by designing a marketable and desirable product that acts as an intermediary between new and old, low rise and medium rise.

2. Draw from materials used in the character of Opey Avenue but designing a very contemporary style of townhouse with generous floor plans and double garages hidden from the street.

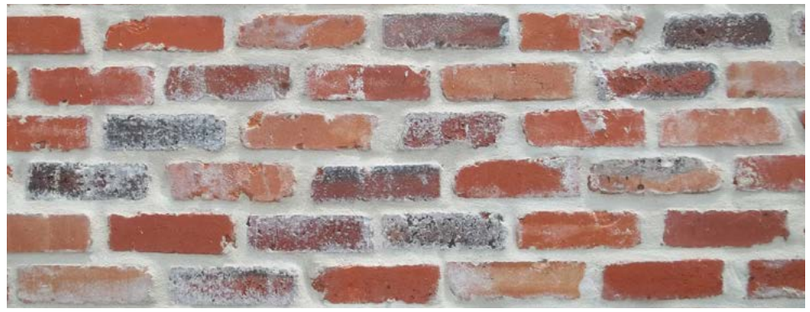
3. Provide plenty of deep soil zones to frame the townhouses to the west of the site.

MATERIALS

1. Reclaimed red brick

2. Charcoal steel cladding areas, similar to corrugated roofs in the area

3. white hebel, to tie in with white concrete to mixed use building.



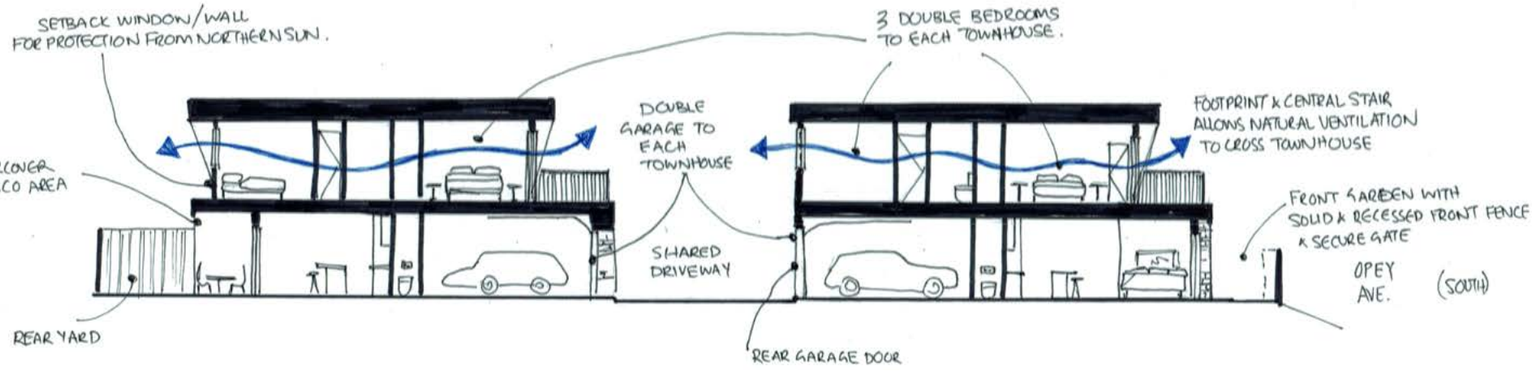
DESIGN RESPONSE

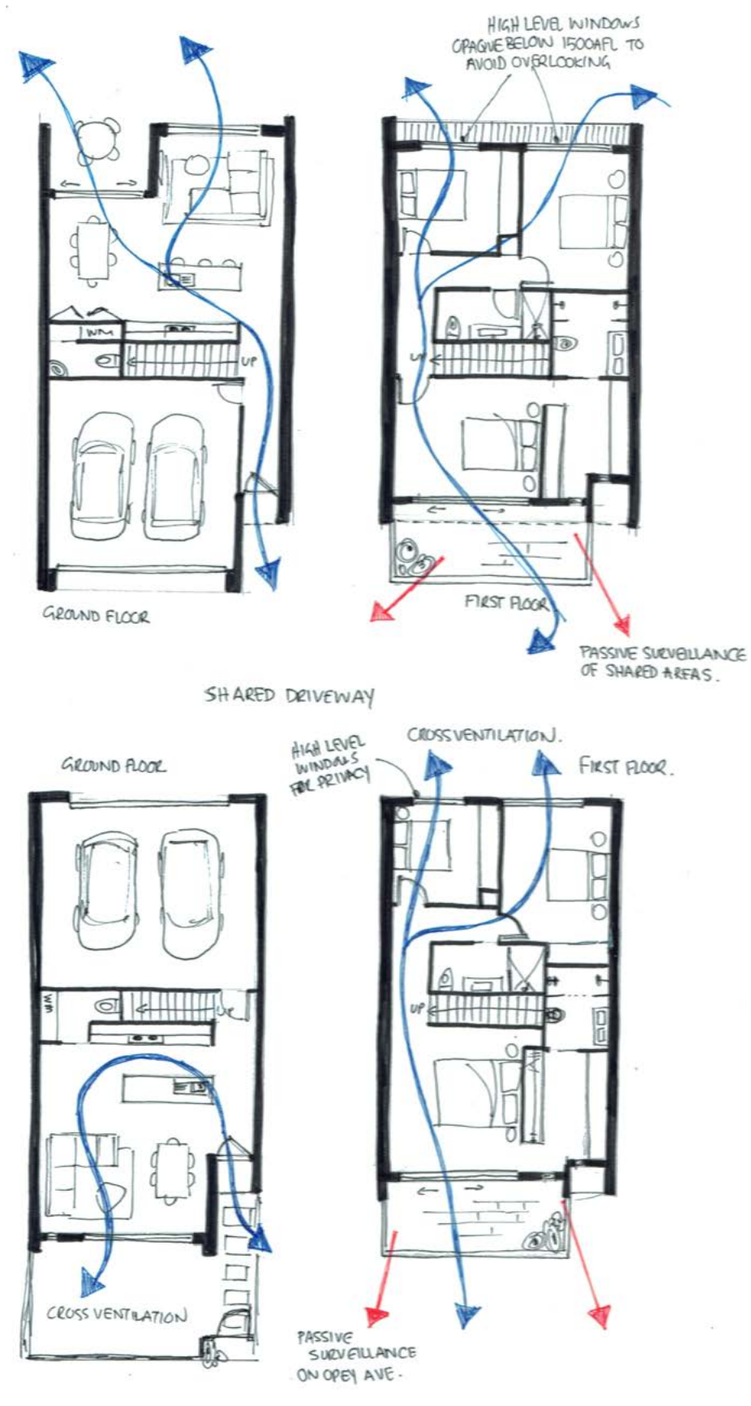
CONCEPT

FEATURES

Each townhouse features the following:

- Three bedrooms & two bathrooms with a third toilet
- private landscaped front yards to front townhouses
- private rear and side yards to the rear townhouses
- double garage hidden from street, accessed from consolidated cross-over, with right of way that is shared with mixed use building
- first floor balconies for extra private open space and passive surveillance of Opey Avenue and accessway.





DESIGN RESPONSE

INTERIOR DESIGN
"HAMPTONS LUXE" COLLECTION

FEATURES

Modern shaker cabinets in 2 pac white or black with oversize handles in chrome or matt black

Chrome or matt black tapware

Timber floors with option for herringbone pattern in the bespoke flooring upgrade

Bespoke vanity, in wall cistern toilet suites, designer tiles with feature marble mosaic

Marble benches and splashback

DESIGN RESPONSE

INTERIOR DESIGN
"MANHATTAN MODERN" COLLECTION

FEATURES

MINIMALIST APPROACH WITH HANDLE-LESS FLUSH PULL CABINETRY

TIMBER FLOORS WITH OPTIONAL HERRINGBONE PATTERN IN BESPOKE FLOORING UPGRADE

TIMBER ACCENT CABINETRY

QUARTZ BENCHES AND MATCHING SPLASHBACK

CHROME OR MATT BLACK TAPWARE

BESPOKE VANITY, IN WALL CISTERN TOILET SUITES, DESIGNER TILES WITH FEATURE MOSAIC TILE

DESIGN RESPONSE

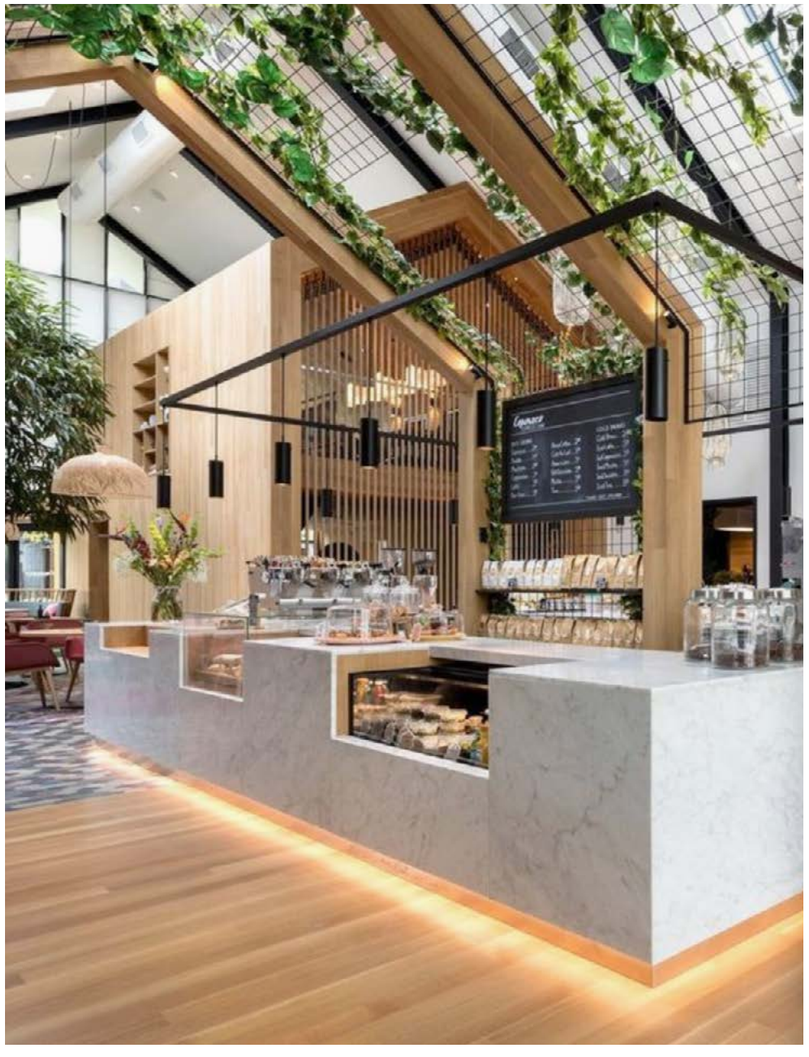
INTERIOR DESIGN
ENTRANCE LOBBY INSPIRATION

RATIONALE

The aim with the entrance lobby is to create an area that residents and visitors not only simply walk through to get into and out of the building, but an area that residents can stop and pick up coffee or lunch, let their visitor's wait for them, meet a friend before heading out shopping and socialise with other residents in the building whilst waiting for a takeaway order. Finally, the aim is to provide a gap in the market for Adelaide apartment buildings - you often see a lobby coffee shop in commercial buildings yet rarely in residential buildings.

DESIGN FEATURES

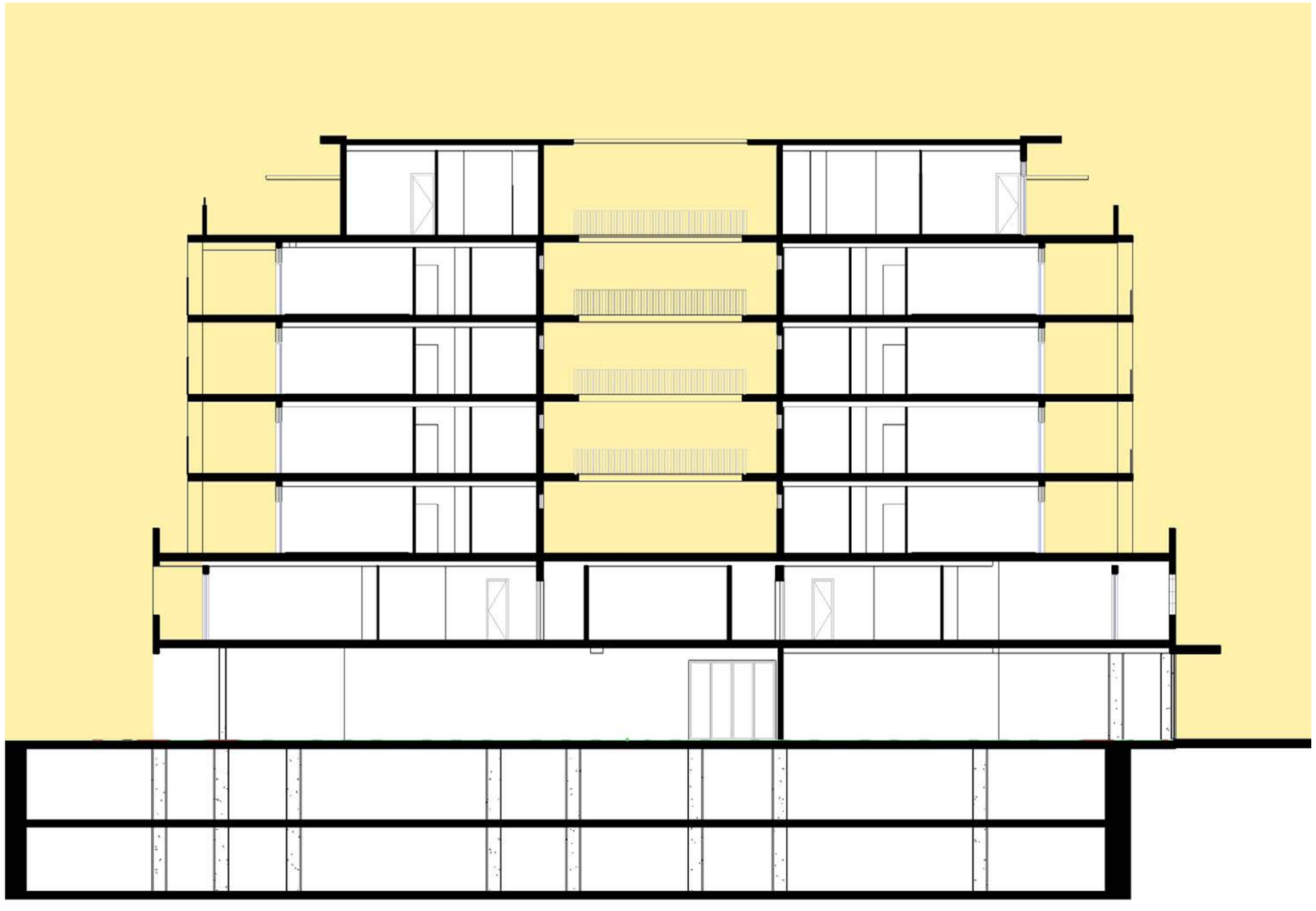
- Large format tiles with copper inlay / grout lines
- Marble counter and bench for coffee bar
- A green feature wall housing a lobby or coffee bar branding
- Double height atrium and lobby to give a grand, light-filled and pleasant environment for residents and visitors
- Bar & booth seating for waiting, greeting and relaxing with friends/colleagues.



DESIGN RESPONSE

ENVIRONMENTAL DESIGN SOLUTIONS

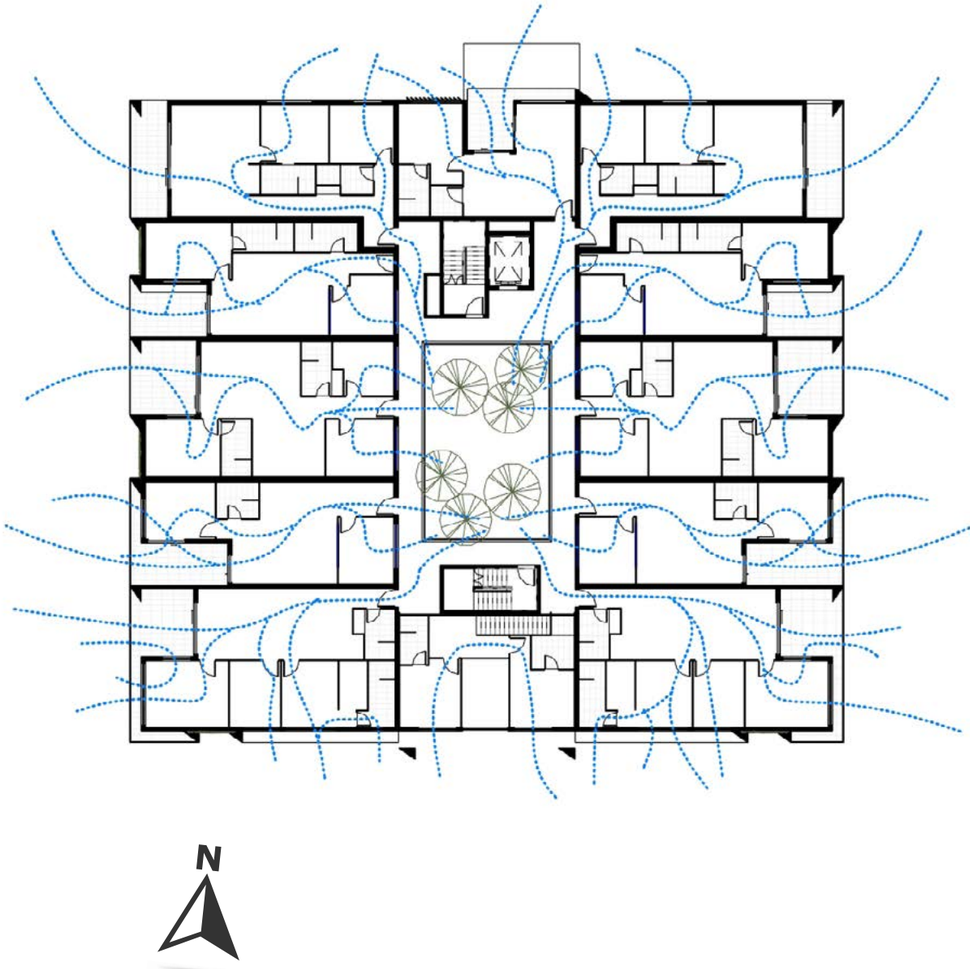
NATURAL LIGHT

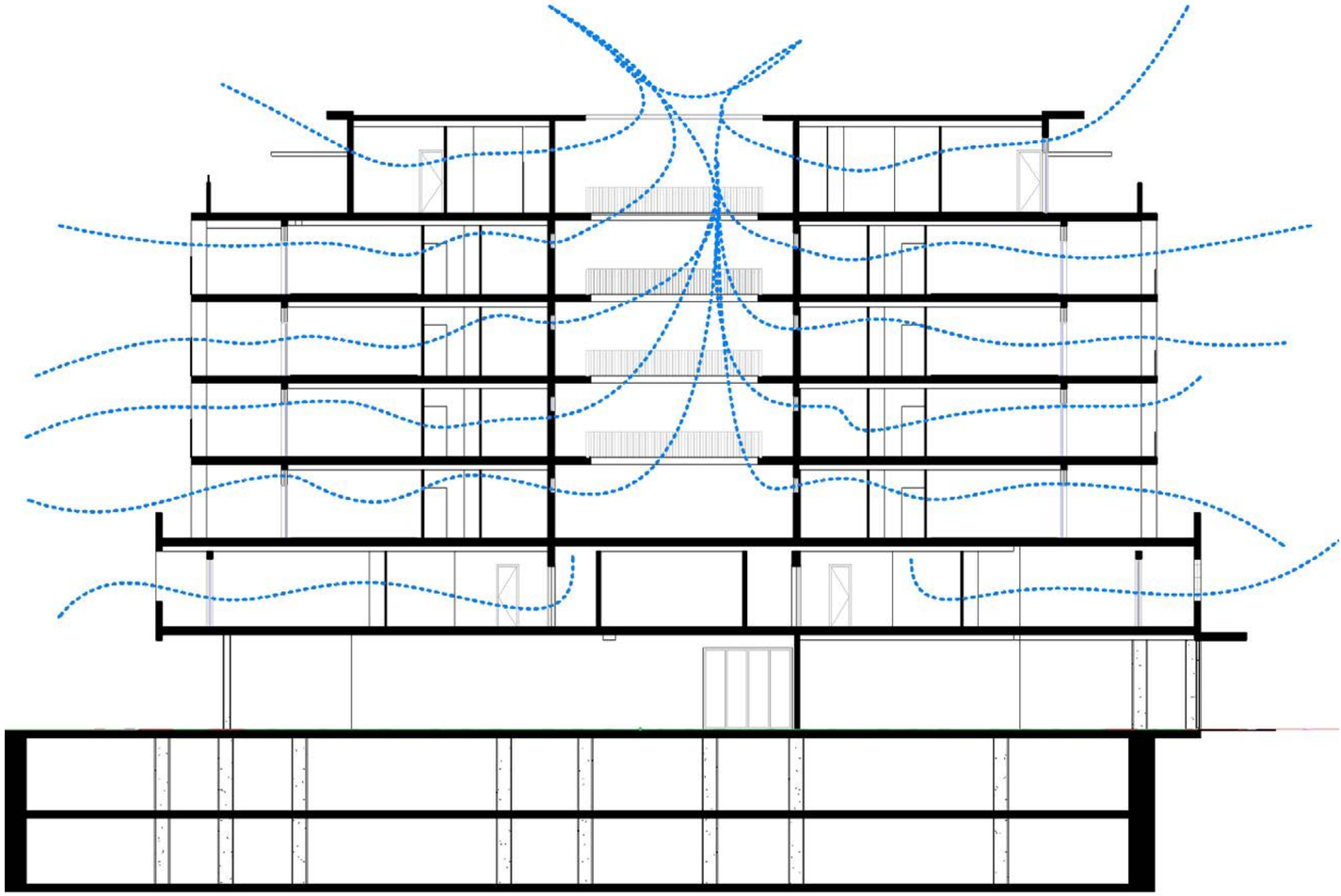


DESIGN RESPONSE

ENVIRONMENTAL DESIGN SOLUTIONS

CROSS VENTILATION





DESIGN RESPONSE

SHADOW STUDY - WINTER SOLSTICE

9 AM

10 AM

11 AM

12 PM

1 PM

2 PM

3 PM

N

DESIGN RESPONSE

SHADOW STUDY - SUMMER SOLSTICE

9 AM

10 AM

11 AM

12 PM

1 PM

2 PM

3 PM

N

DESIGN RESPONSE

SITE MOVEMENT & CPTED

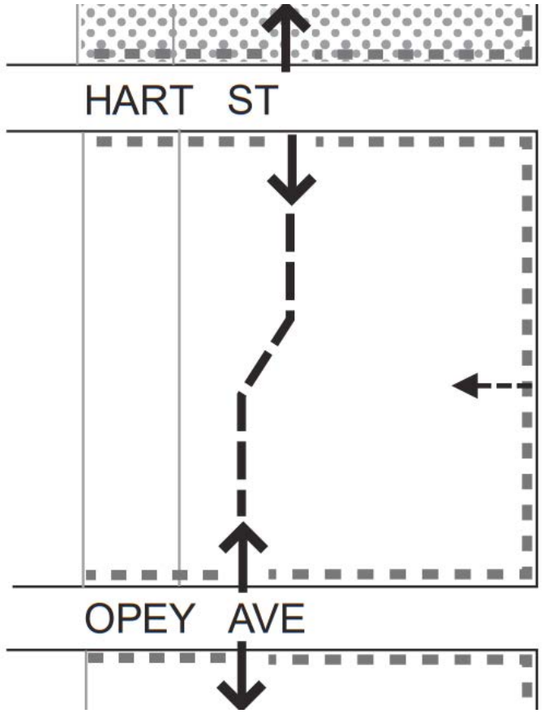
PUBLIC TRANSPORT LINKS

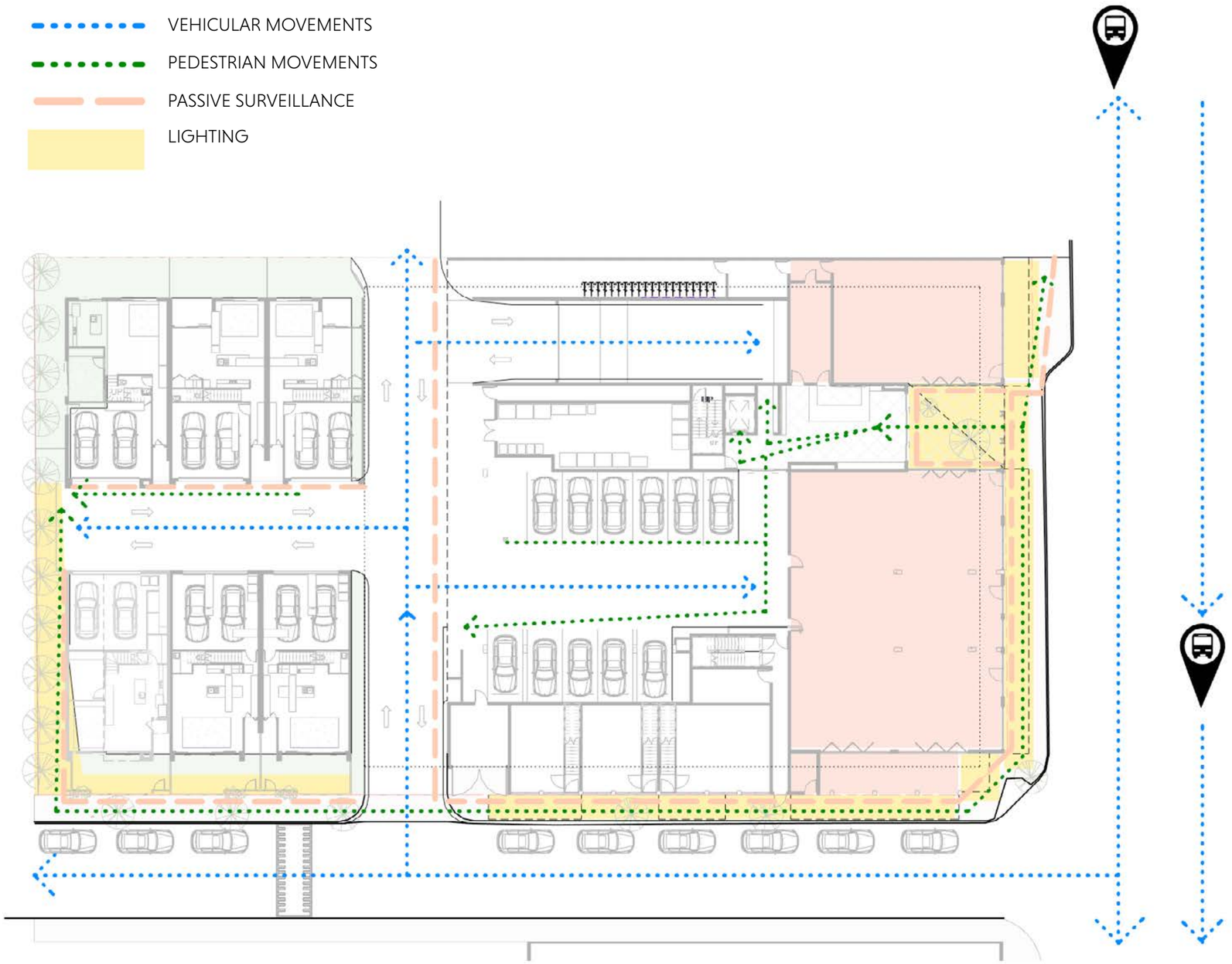
- The site is located in a bus go zone with a bus stop just 20 metres north of the site to the city and opposite to head south to the hills.
- Unley Road has bicycle lanes heading north and south.

ON-SITE MOVEMENT

The plan below shows various site movements as well as the configuration of spaces to create a safe and pleasant pedestrain experience.

UNLEY COUNCILS DESIRED TRANSPORT LINK





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ARCHITECTURAL DRAWINGS

Site context plans

Demolition & infrastructure plan

Lower basement

Basement

Ground floor

First - sixth floor

Roof plan

Design sections

Elevations

Townhouse plans

Building areas

6

APARTMENT TYPES

Studio apartments

1 bedroom apartments

2 bedroom apartments

3 bedroom apartments

3 bedroom penthouses

APARTMENT TYPES

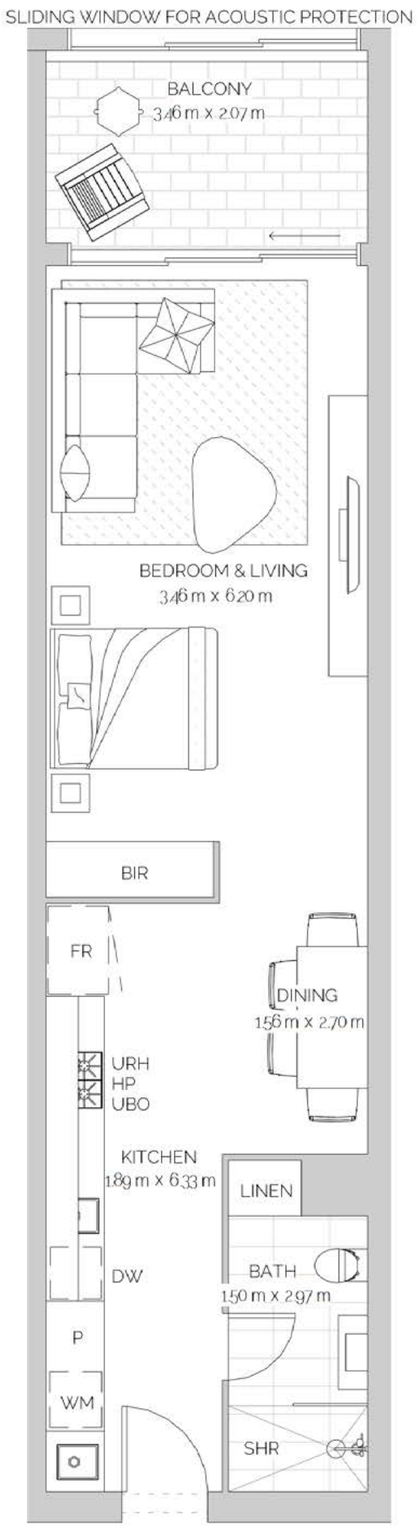
STUDIO APARTMENTS

TYPE H

1 BED 1 BATH

FLOOR PLAN

BALCONY



APARTMENT TYPES

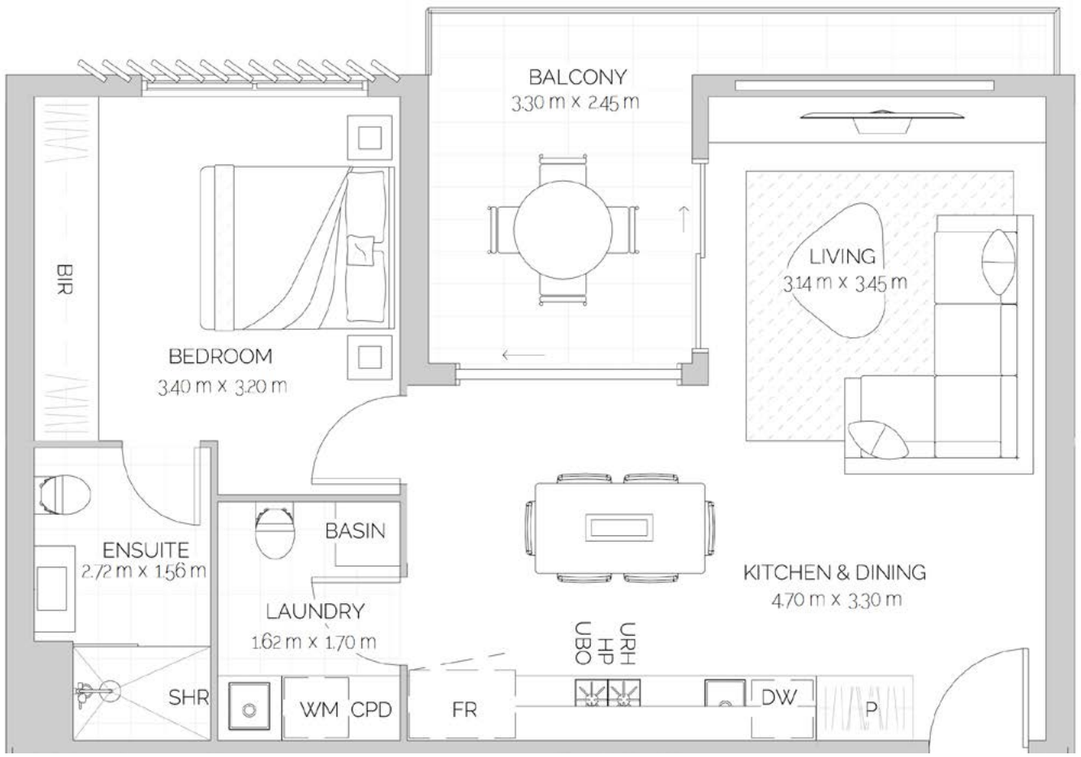
1 BEDROOM APARTMENTS

TYPE A

1 BED 1.5 BATH

FLOOR PLAN

BALCONY



APARTMENT TYPES

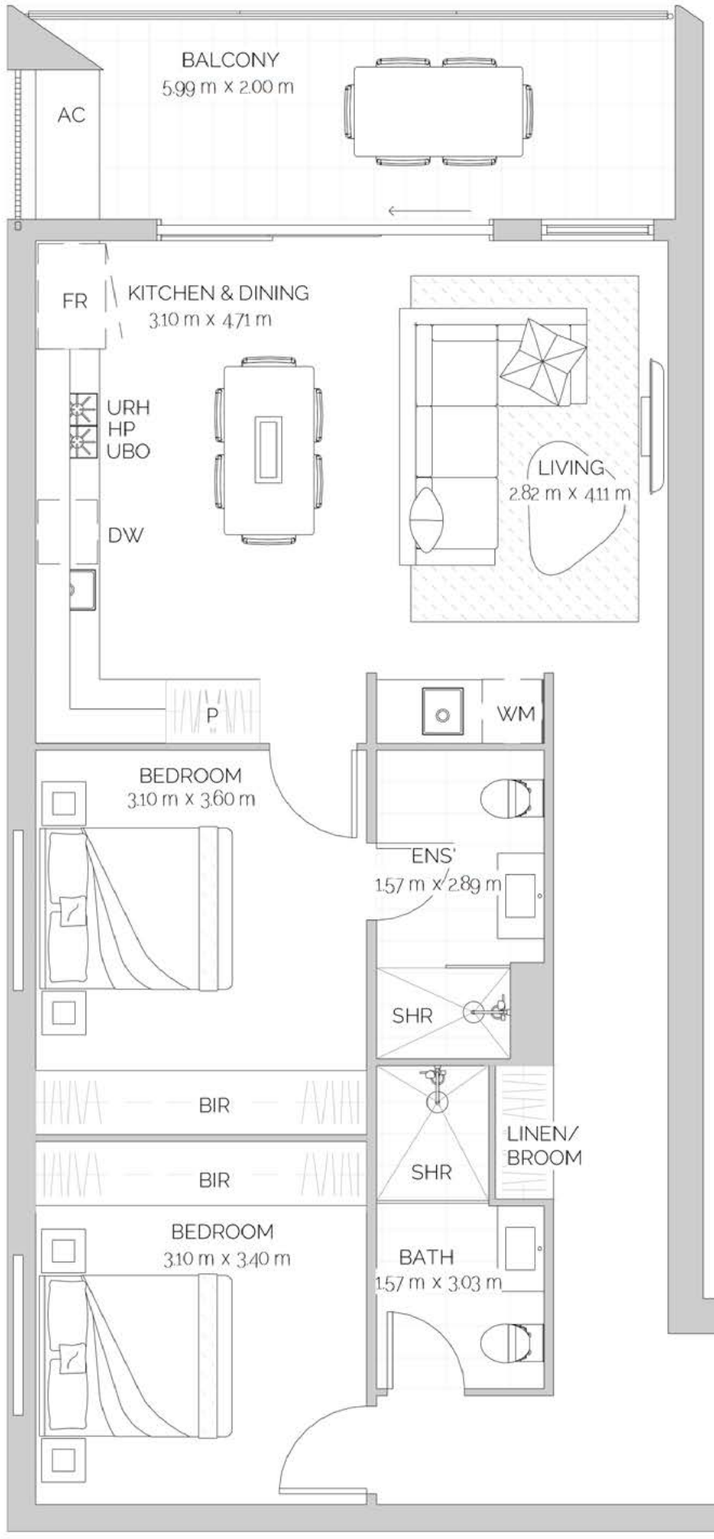
2 BEDROOM APARTMENTS

TYPE B

2 BED 2 BATH

FLOOR PLAN

BALCONY

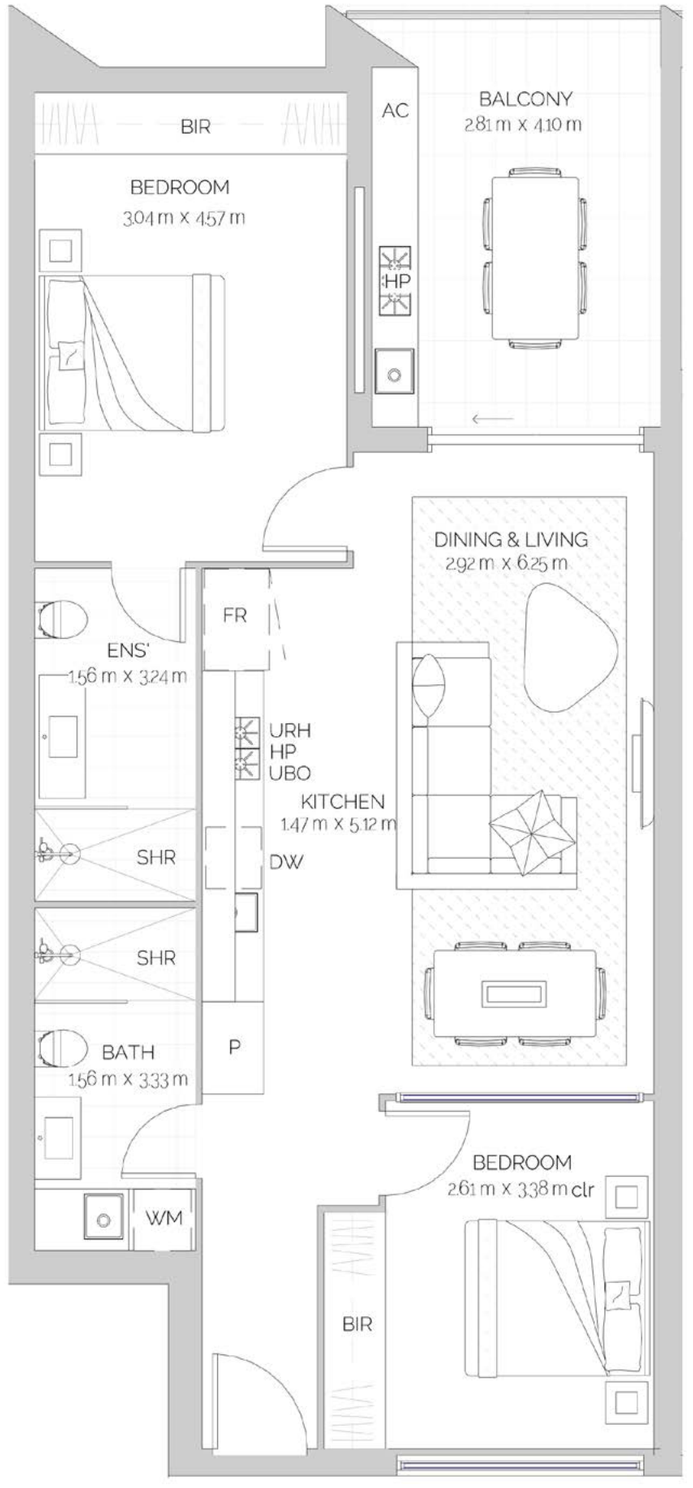


TYPE C

2 BED 2 BATH

FLOOR PLAN

BALCONY



APARTMENT TYPES

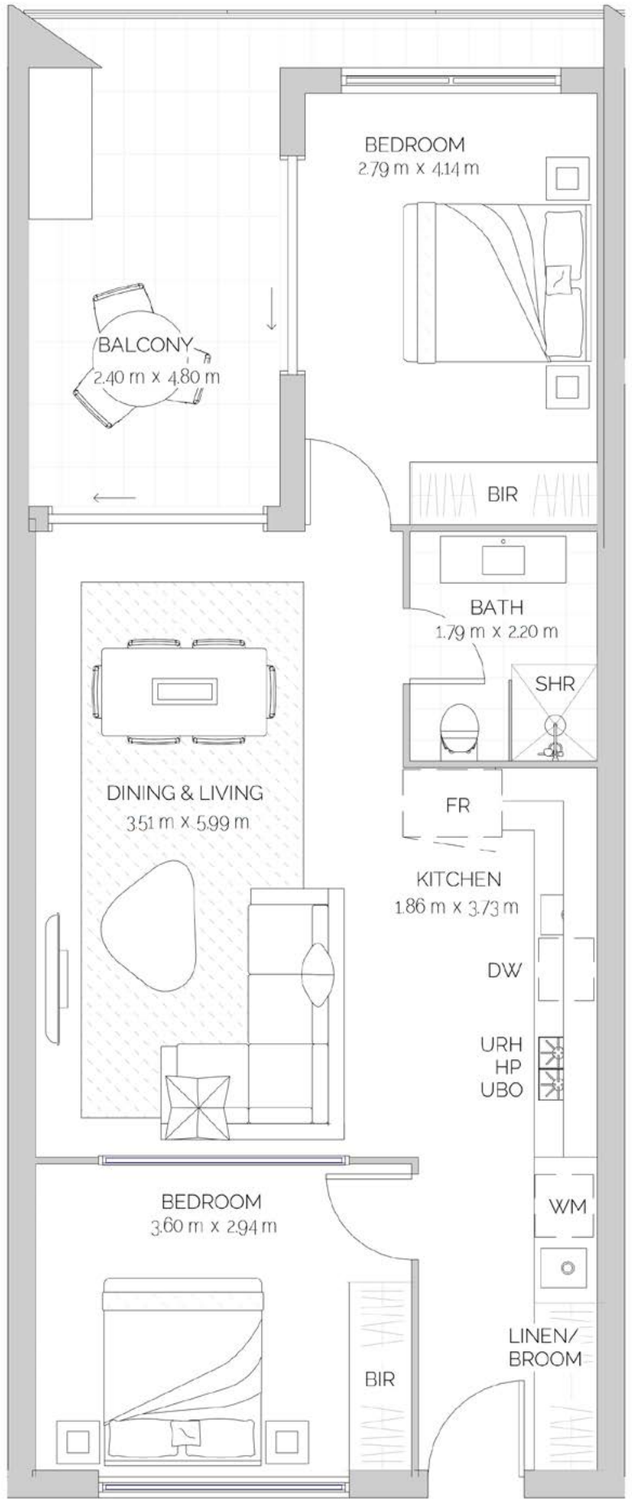
2 BEDROOM APARTMENTS

TYPE E

2 BED 2 BATH

FLOOR PLAN

BALCONY



APARTMENT TYPES

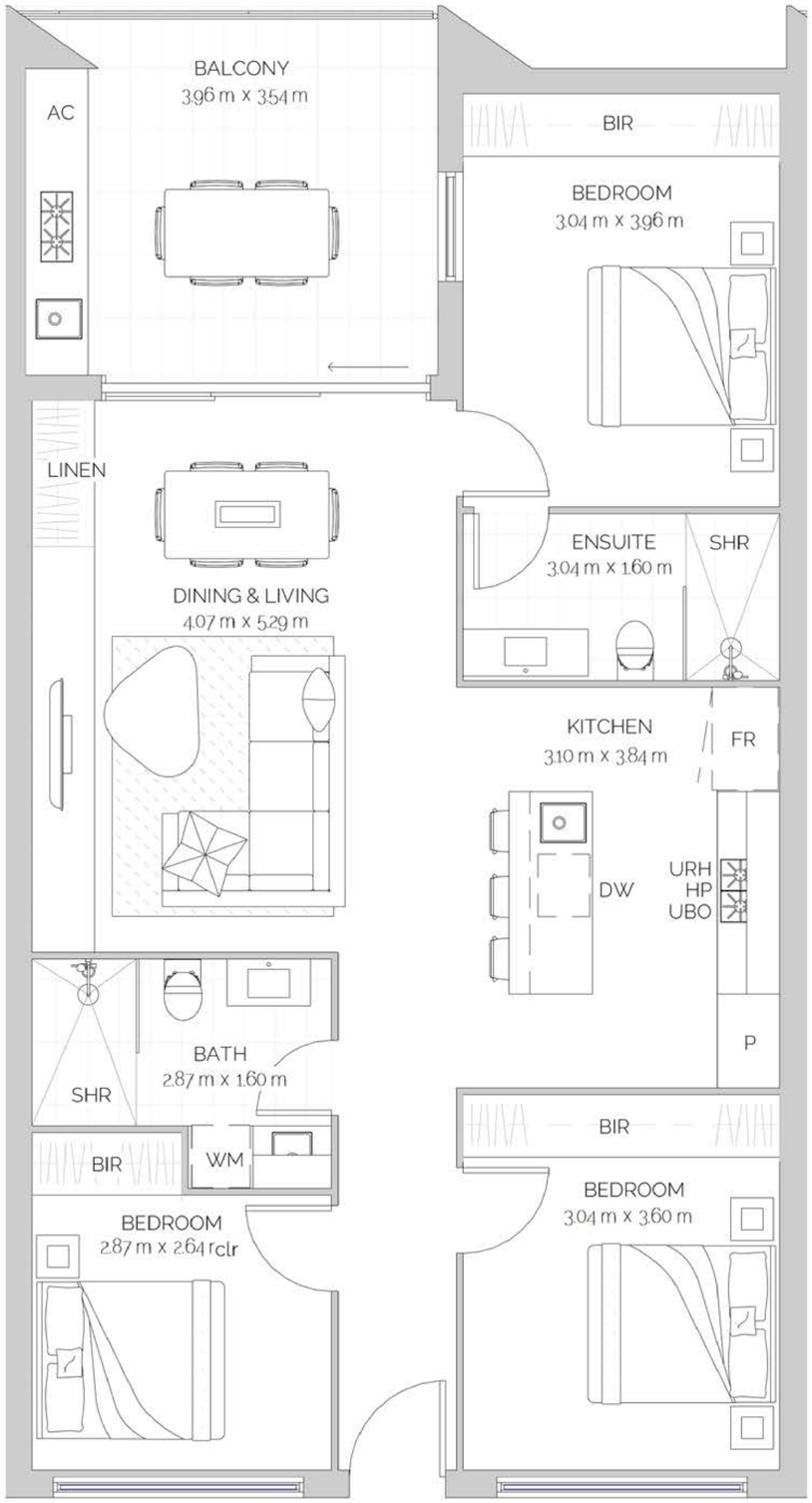
3 BEDROOM APARTMENTS

TYPE D

3 BED 2 BATH

FLOOR PLAN

BALCONY



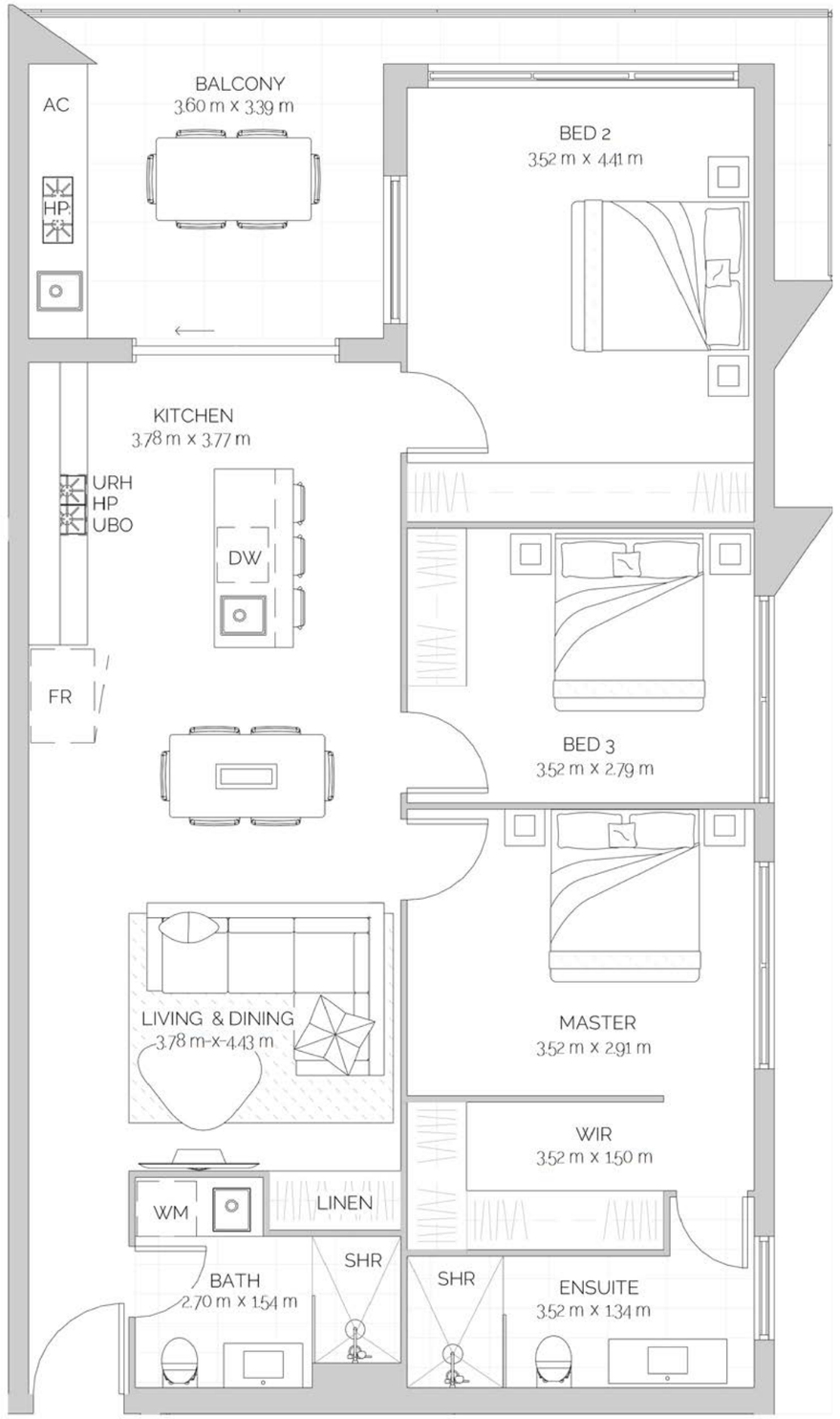
3 BEDROOM APARTMENTS

TYPE F

3 BED 2 BATH

FLOOR PLAN

BALCONY



APARTMENT TYPES

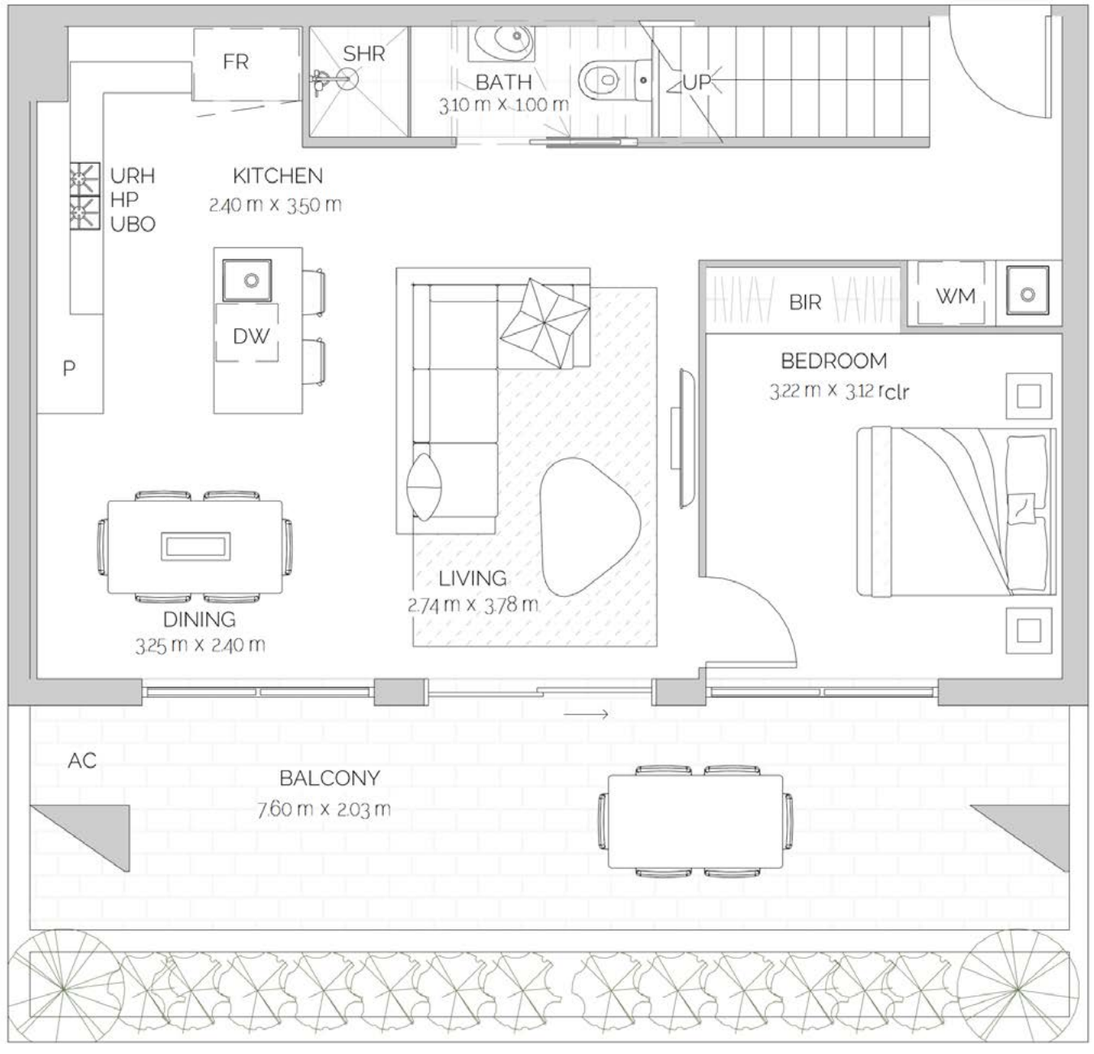
3 BEDROOM APARTMENTS

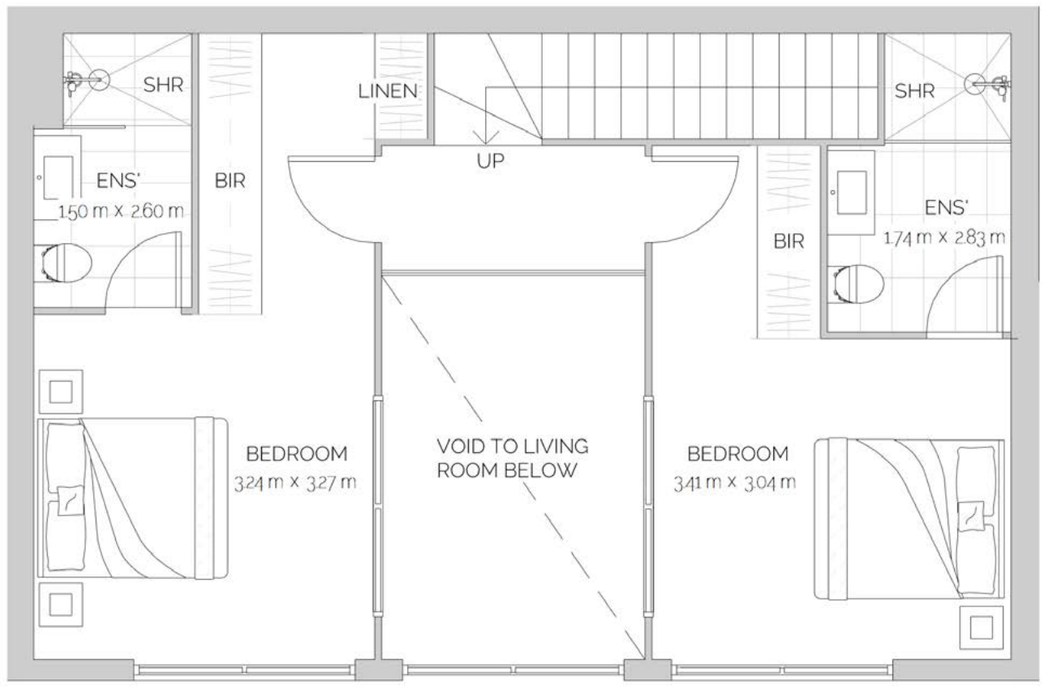
TYPE G SPLIT LEVEL

3 BED 3 BATH

FLOOR PLAN

BALCONY





APARTMENT TYPES

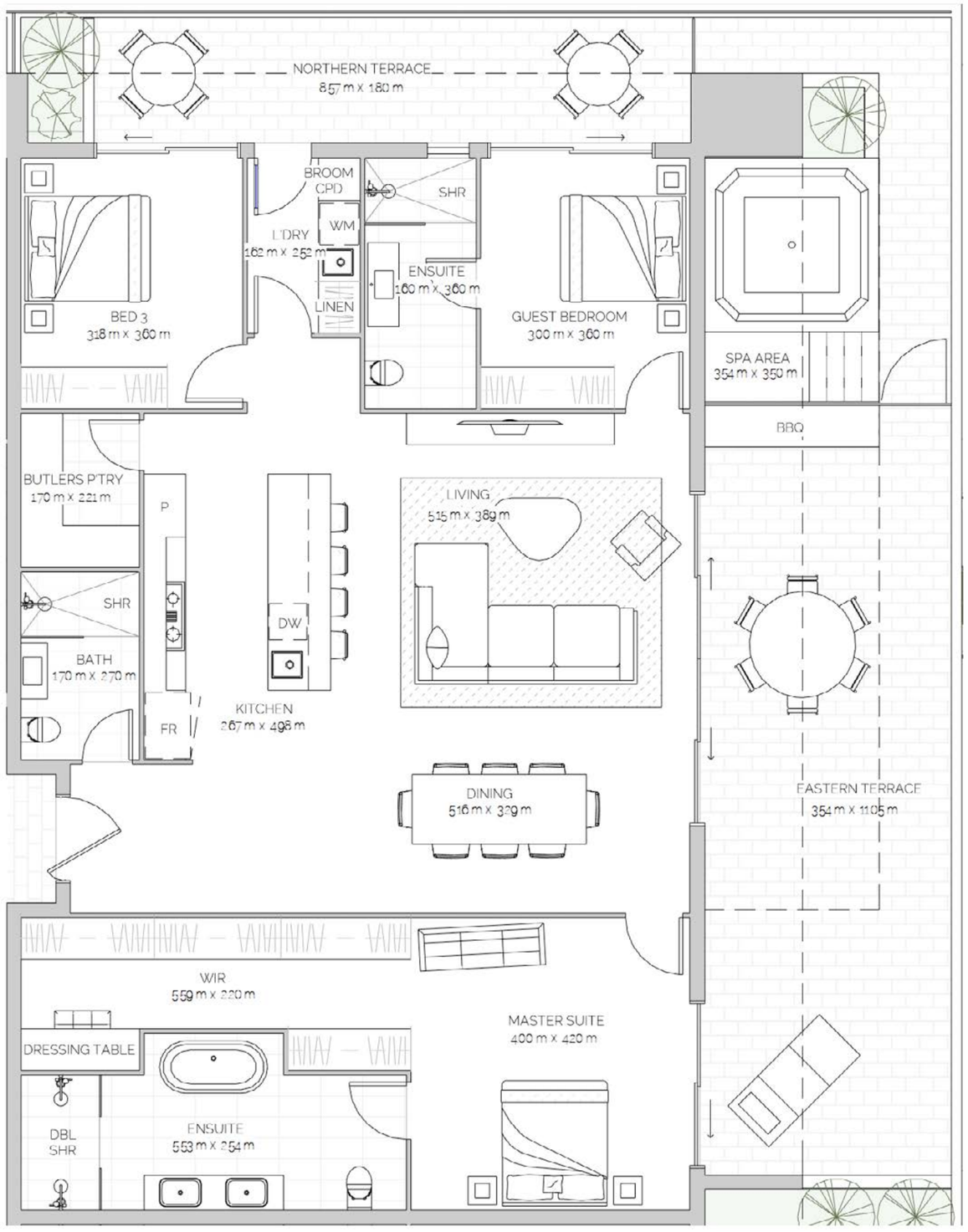
3 BEDROOM PENTHOUSES

PENTHOUSE NORTH

3 BED 3 BATH

FLOOR PLAN

BALCONY



APARTMENT TYPES

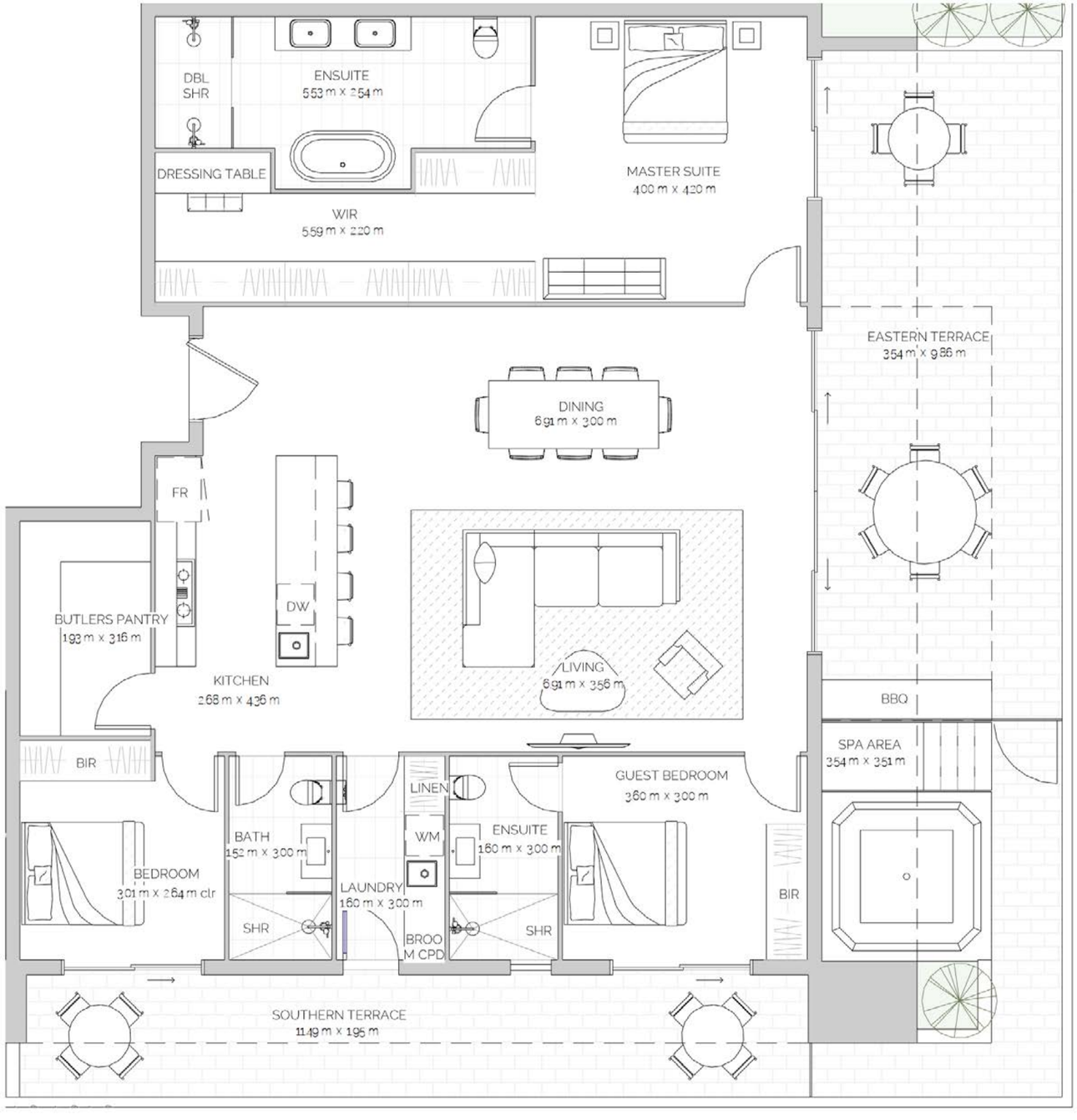
3 BEDROOM PENTHOUSES

PENTHOUSE EAST

3 BED 3 BATH

FLOOR PLAN

BALCONY



APARTMENT TYPES

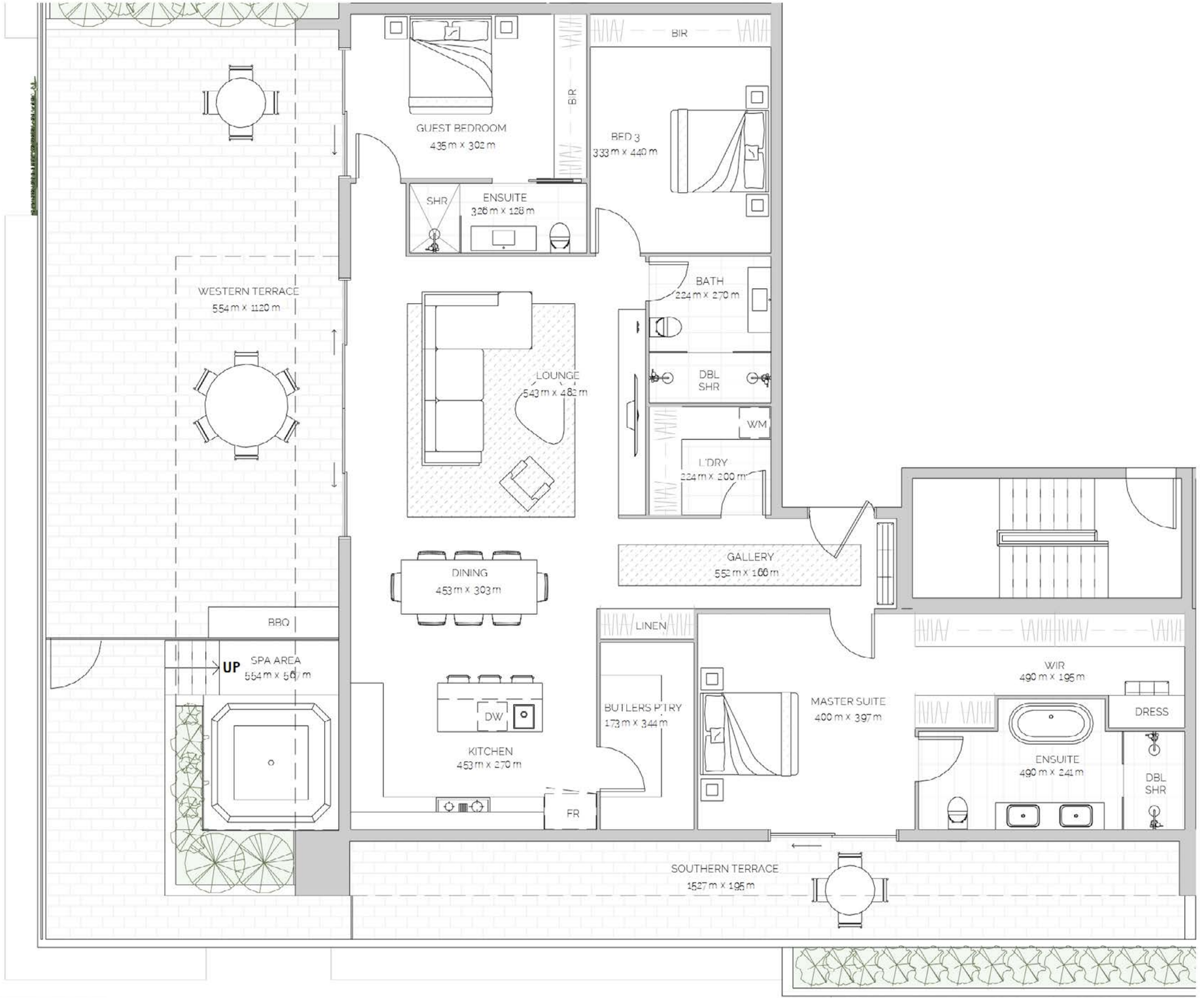
3 BEDROOM PENTHOUSES

PENTHOUSE SOUTH

3 BED 3 BATH

FLOOR PLAN

BALCONY



APARTMENT TYPES

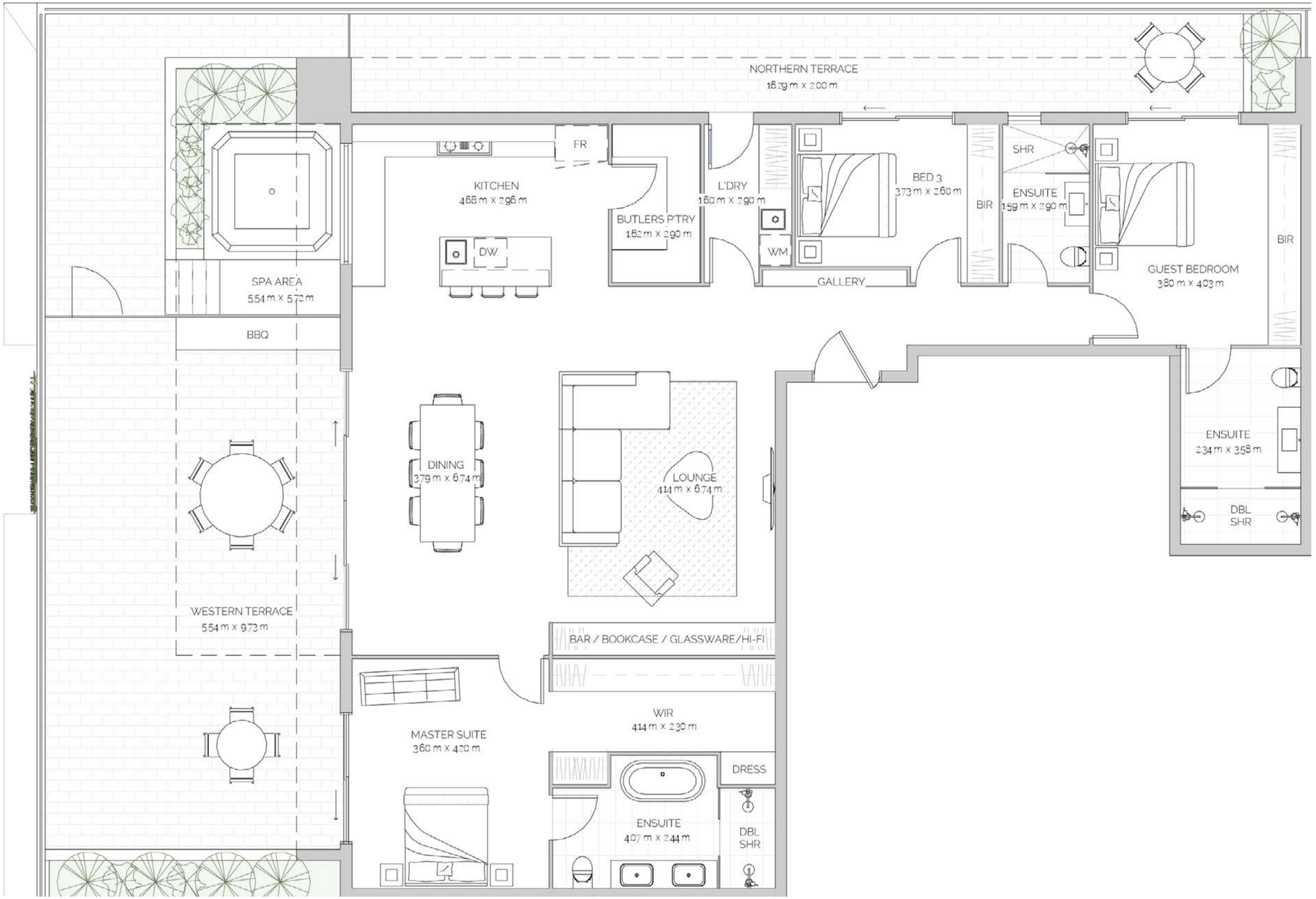
3 BEDROOM PENTHOUSES

PENTHOUSE WEST

3 BED 3 BATH

FLOOR PLAN

BALCONY



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22nd March 2018 **Tree Report: 3211**

Joel Wilkinson
CITIFY
E: citifygroup.com.au

Dear Joel,

As discussed on site; I am to assess and evaluate the trees growing on-site and in the close proximity of *Cremorne Plaza,* 248 Unley Road, Hyde Park.

The Report

1) Assesses the trees in relation to *The Development (Regulated Trees) Amendment Act 2009* the *Development (Regulated Trees) Variation Regulations 2011 and the Regulated Trees Development Plan Amendment (The Regulated Trees DPA).*
2) Assesses the trees in relation to the Unley Council Development Plan.
3) Assesses the general condition and structure of the trees.
4) Identifies Tree Protection Zones Tree Protection Zones (TPZ) & Structural Root Zones (SRZ) in accordance with *the Australian Standard AS 4970-2009 Protection of trees on development sites.*

Please Note: The previous tree report was completed by Mark Eitzen of Acer Horticultural Services; completed 4th March 2014 (***unavailable to complete the revised tree report***). I have permission to use information from his previous tree report.

The previous development application that was approved was from Hart Avenue to Opey Avenue and was 100 plus apartments and they were removing the trees and replacing with Jacaranda's.

Site Location

Image 1: Google Earth Image of 248 Unley Road and Opey Avenue, Hyde Park, South Australia.

Executive Summary

The trees required to be removed are labelled 1, 2, 3, 6 and 7 on the site plan below. They are also captured in the images overleaf.

Site Plan

Image 2: Site plan of 244 – 248 Unley Road and Opey Avenue, Hyde Park, South Australia.

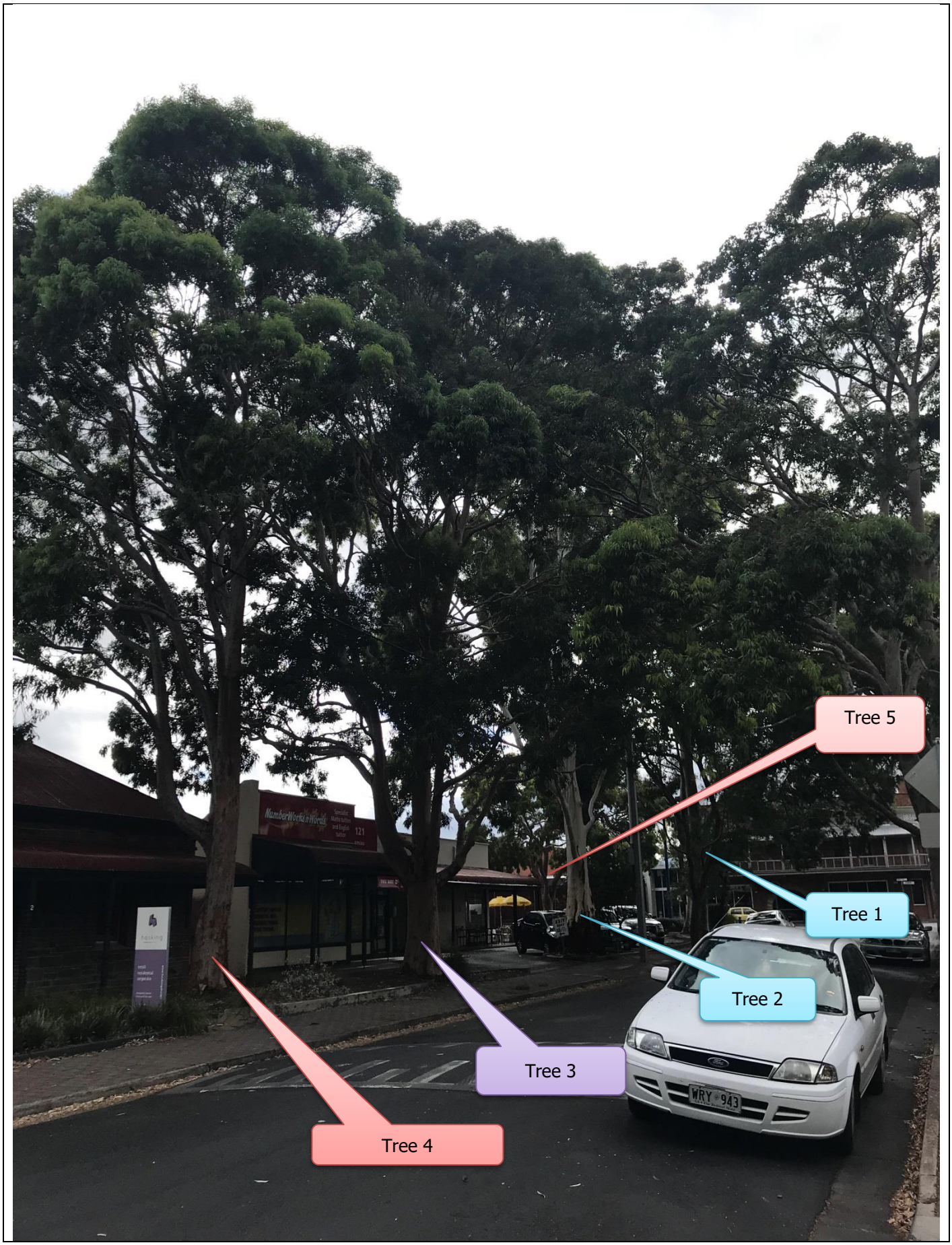


Image 3: Opey Road Hyde Park, South Australia. Looking east towards Unley Road.

Image 4: Front of 244-248 Unley Road and Opey Road, Hyde Park. South Australia.

These trees have been planted around the commercial buildings and are approximately 40 years of age and have outgrown their designated garden beds; damaging infrastructure that supports these commercial buildings.

Therefore we are seeking the removal of all 5 of these trees prior to the proposed new development.

Trees 1 and 2 are significant, and Tree 3 is regulated. Council may considerer these trees to *significantly contribute to the character and visual amenity of the locality within the streetscape*.

However; none of the trees are listed in the City of Unley Councils *"Significant Trees Register"* identified in Table Un/9 pages 321-322; this is a list of the trees that the Council consider as of *high significance & amenity value.*

Part 2 Amendment of Development Act 1993 4 Amendment of Section 4. Sub regulations (1) and (2) The Act controls 'tree damaging activities' in relation to a regulated tree and or significant tree by defining it to be 'development'. This Act allows the consideration of the removal of a regulated tree where it is considered to reasonably impede upon the development potential of the site.

Given the Zone's focus on high density development and desire for minimal to no setbacks from the primary and secondary road frontages, there is a clear intention for the majority of the site to be developed. As such it is considered that the removal of all three of these trees is reasonable in this instance.

The proposed development includes a comprehensive and well-considered landscape design that incorporates new plantings of trees, particularly along the Opey Avenue. The provision of six semi-mature jacarandas is considered to be appropriate compensation.

Trees 4 and 5 are non-regulated trees and therefore should not be subject to Development Controls but because of their location, particularly Tree 5, on Unley Road, the Council may require written notification to apply for removal if it was required.

Trees 1, 2 & 3 in respect to the Council's *Objectives:*

***Regulated & Significant Trees PDC pages 56-57*:**

Regulated Trees: P D C: 2 b, c and d applies to Tree 3

Tree 3 is a regulated tree which the Council may consider to *significantly contribute to the character and visual amenity of the locality within the streetscape*.

PDC 2: A regulated tree should not be removed or damaged other than where it can be demonstrated that one or more of the following apply:

(a) the tree is diseased and its life expectancy is short;
(b) the tree represents a material risk to public or private safety;
(c) the tree is causing damage to a building;
(d) development that is reasonable and expected would not otherwise be possible;

The proposed development is difficult to achieve for high density development with the tree's numerous surface roots which are causing damage to existing infrastructure. The intended proposed high density development with zero setbacks for the majority of the site is not achievable with this tree.

Significant Trees: PDC 4, 5, 6, 7, 8 & 9 applies to ***Tree 1 and 2*** (Significant) (Sig) tree.

Trees 1 and 2 are significant trees mich the Council may consider to *significantly contribute to the character and visual amenity of the locality within the streetscape*.

PDC 8 Significant trees should be preserved and tree damaging activity should not be undertaken unless:

(a) in the case of tree removal;
(ii) the tree represents an unacceptable risk to public or private safety; or
(iii) the tree is shown to be causing or threatening to cause substantial damage to a substantial building or structure of value and all other reasonable remedial treatments and measures have been determined to be ineffective; or
(iv) it is demonstrated that reasonable alternative development options and design solutions in accord with Council-wide, Zone and Area provisions have been considered to minimise inappropriate tree-damaging activity occurring; or

PDC 9 Development involving ground work activities such as excavation, filling, and sealing of surrounding surfaces (whether such work takes place on the site of the tree or otherwise) within a distance equal to the under-tree canopy of a significant tree, should only be undertaken where the aesthetic appearance, health and integrity of the significant tree, including its root system, will not be adversely affected.

PDC 9 & 10: are difficult to satisfy for high density development with numerous surface roots from these two trees which are causing damage to existing infrastructure, and the intended proposed high density development with zero setbacks for the majority of the site is not achievable with these two trees.

These two trees have tree protection zones between 8.5 and 11 metres covering the now unevenly surfaced egresses and car parking within the site, trip hazards for pedestrians and damage to infrastructure.

Comment: **Trees 1, 2, 3** are considered to make an important contribution to the character and amenity of the area and form notable visual elements to the landscape. **Trees 1 and 3** exhibit good health, form & structure with estimated life expectancies of 40+ years.

However, **Tree 2**, a 'significant tree' that may be affected by environmental stress of insect attack in/externally are evident at the base of the tree and will be even more so within the next 5-10 years. Consequently, it would not be unreasonable to consider this tree (**Tree 2**) for removal if it was impeding design plans. The trees currently represent an acceptable level of risk to the area and require minimal pruning management to maintain this situation.

There may be a possibility that individual tree(s) including the Unley council street trees on Opey Avenue (**Trees 6 & 7**) could be removed if it was determined that their retention was impeding development e.g. new or wider crossovers to access the site, however this would have to be supported with comprehensive design plans for Council to consider:

Significant Trees: **PDC 8** (a) iii and iv it is demonstrated that reasonable alternative development options and design solutions in accord with Council-wide, Zone and Area provisions have been considered to minimise inappropriate tree-damaging activity occurring.

Council would determine if it is necessary to remove the Council street trees; identified as Trees 6 and 7.

Recommendation:

Trees 1, 2 and 3 Council may considerer these trees important to the streetscape and may *significantly contribute to the character and visual amenity of the locality within the streetscape*.

However, given the Zone's focus on high density development and desire for minimal to no setbacks from the primary and secondary road frontages, there is a clear intention for the majority of the site to be developed. As such it is considered that the removal of all three of these trees is reasonable in this instance.

The site

Located at 248 Unley Road, Hyde Park. See Survey Site Plan by Richard Retallack - Surveyor. The complex, *Cremorne Plaza* is comprised of shops, offices and car parking areas on the corner of Unley Road & Opey Avenue with access from Unley Road & Opey Avenue.

The site inspection identified five mature trees growing on the edge of the car parking area on the subject land. Four of the trees are growing in a linear planting along Opey Ave and one tree is growing at the front of the property facing Unley Road.

The linear planting of the trees along Opey Ave and the fact that two of the trees are of the same species as the 'street trees' growing along Opey Ave suggests that the trees may have originally been planted as council 'street trees'.

However the survey plan shows that the bases of the trees are located on the subject land. **Trees 1 and 2** are identified as *significant;* **Tree 3** is a *Regulated tree* and are therefore subject to Development Controls.

The trees are not listed in the Councils *"Significant Trees Register"* identified in Table Un/9 that list trees that the Council consider as of *high significance & amenity value.*

However it is likely that the Council would consider that the trees *significantly contribute to the character and visual amenity of the locality* and concur with several of the Council's relative *Objectives & Principles of Development Controls* regardless of their legal status.

Consequently it is unlikely that Council would approve tree removal without comprehensive design plans showing that their retention was impeding development e.g. new or wider crossovers to access the site; however this would have to be supported with comprehensive design plans for Council to consider.

Therefore the following information needs to be considered as part of the development:-

Trees especially Eucalypts and or Corymbia's can have a pre-disposure to sudden Limb failure (SLF)[10] this may have been the reason for the recent pruning.

1. Whether there are any alternative measures that could be implemented to retain the tree(s) and the appropriate costs of implementing each of those (should any be available). In order to determine the reasonableness of alternative measures:
2.
   - Determined the extent and long-term effect of damage associated with the trees remaining;
   - Look at the structural integrity and or defects of the trees;
   - Identified and define the appropriate Tree Protection Zone for the tree;
   - Suggest appropriate treatments to be used within the Tree Protection Zones that will assist in the longer-term preservation of the tree if any;
   - Determined any encroachments within the tree protection zones and suitable engineering techniques that can be used to reduce impacts on the built environs caused by the tree.

3. Veteran tree management options if appropriate from a pruning methodology in accordance with AS4373-2007 "Pruning of Amenity Trees" (If applicable);
   a) **Please Note:** Already completed and dieback /borers present in tree);
   b) Further discussion; I am of the opinion any tree retained must be managed on a regular basis at least every two years by the tree owner.
   c) Removal of the tree(s) and or stump(s).

The weather at the time of my inspection was cloudy and sunny. My observations were carried out from ground level using a digital camera to record pictures and collect information.

Tree Protection Zones:

Trees are dynamic organisms that require specific environmental conditions to continue healthy and stable growth. Significant changes to their established growing environment need to be avoided especially where this would affect their root system. The main functions of roots include the uptake of water and nutrients as well as anchorage and storage of sugar reserves. In order for roots to function they must be supplied with oxygen from the soil.

The Tree Protection Zones have calculated in accordance with *the Australian Standard AS 4970-2009 Protection of trees on development sites and* is the area of the root zone and crown area that requires protection to ensure the trees remain viable.

TPZ encroachments greater than 10% or within the SRZ, would be considered a *Major encroachment* and a project arborist would have to demonstrate that the trees could remain viable. This may require root investigation by non-destructive methods and the consideration of relevant factors. It is possible to construct driveways and car parking within the TPZ of trees as this is not considered as major encroachments when 'Tree friendly' methods that reduce the impact (root damage & compaction) on trees during and after construction are implemented.

If tree(s) are retained Tree Damaging Activity can be avoided with the calculated Tree Protection Zones and Tree Protection Methods implemented, consequently potential development could comply with PDC.

Summary Table Tree Assessment

Trees	*Species*	*Age*	*Health*	*Form*	*Structure*	*Circumference*	*Sig/Reg tree*	*DBH*	*TPZ*	*SRZ*
1	*Corymbia maculata*	Mature	Good	Good	Good	3.215m	Sig	0.969m	11.628m	3.80m
2	*Eucalyptus viminalis*	Mature	Fair-declining	Fair	Fair	3.830m	Sig	0.965m	11.58m	4.15m
3	*Angophora costata*	Mature	Good	Good	Good	2.25m	Reg	0.709m	8.58m	3.15m
4	*Angophora costata*	Semi mature	Good	Good	Good	1.930m	No	0.66m	7.89m	3.0m
5	*Angophora costata*	Semi mature	Good	Good	Good	1.980m	No	0.616	7.93m	3.0m
Council trees	***Council will have to make the decision about these trees within the streetscape***									
6	*Angophora costata*	Semi mature	Poor	Poor	Poor	<1.2 m	No		Poor specimen	
7	*Fraxinus angustifolia*	Young	Poor	Poor	poor	<.900 m	No		Pest plant species declared	

Notes:

- A Structural Root Zone (SRZ) is the area required for tree stability.
- A Tree Protection Zone (TPZ) is an area of the root zone and crown area that requires protection to ensure a tree remains viable.
- The TPZ & SRZ measurements = radius in metres from the base of the tree.

Comments:

Under section 3.3 of AS4970-2009 it is recommended that encroachment into the TPZ of any tree is 10% or less provided the encroachment does not extend into the SRZ.

If greater than 10% or within the SRZ, this would be considered a *Major encroachment* and a project arborist would have to demonstrate that the tree/s could remain viable. This may require root investigation by non-destructive methods and consideration of relevant factors including:

- the soil characteristics, topography and drainage.
- the tree species and tolerance to root disturbance.
- the age and vigour of the tree.
- the potential loss of root mass resulting from the encroachment.

Species Overview & Description:

Tree 1*:*
Corymbia maculata (formerly Eucalyptus maculata) or commonly called a '*Spotted Gum' is* large growing species native to southern Queensland through to north eastern Victoria. The '*Spotted Gum'* grown in Adelaide & its environs can grow to approximately 20-25 metres in height with a canopy spread of about 10-15-metres. Although often planted in private gardens it is generally considered to be more suitable as a 'park tree' because of its mature size.

Tree Description; Species: *Corymbia maculata- spotted gum.*

Circumference at one metre above ground level = 3215m.

Therefore the tree is identified as a "*Significant tree"* under the current legislation and development controls apply.

I estimate the semi mature tree to be approximately 40 years, 18 metres in height with a canopy spread of approximately 8m N, 8 m S, and 8 m E & 7 m W. It is possible that the tree will live for another 40+years under the current site & environmental conditions. The tree has most likely reached close to its maximum height and canopy spread.

The tree exhibits good health, form & structure. The tree exhibits good health with no evidence of biotic or abiotic agents currently affecting the health or condition of the tree. The primary structure of the tree is formed from a single trunk divides at about 4 metres into three upright large diameter second order stems and a smaller diameter stem.

The canopy consists of evenly spaced third order branches with relatively good taper. There was no evidence of significant branch failure.

Branch stubs indicate that some small diameter branches have failed and that some small diameter branches that were overhanging the road have been previously removed.

The canopy contained a small volume of dead wood throughout. At the time of inspection all major stem unions & branches appeared sound. Northern lower canopy removed near café.
Large sections of the concrete edging, paving & asphalt have been damages as a result of the trees roots.

The trees Root Zone Measurements calculated Re; *The Australian Standard AS 4970-2009 - Protection for trees on development sites.*

Calculations:

Diameter at Breast Height (DBH) = 0.969m

Tree Protection Zone calculations
DBH x 12 (AS 4970-2009) = 11.62 m
Semi- mature *Corymbia maculata in good condition:* 'Tolerance to Development'- good.

Diameter above root buttress = 1.33m
The Structural Root Zone (SRZ) = 3.80m

***Tree Protection Zone = 11.62 m from the centre of the tree.**

***The Structural Root Zone = 3.80 m from the base of the tree.**

Tree 2*:*

Tree 2: *Eucalyptus viminalis – Manna gum* is native to southern Australia including the higher rainfall areas of the Mount Lofty Ranges. The species does grow on the plains but prefers neutral to acid alluvial soils and higher rainfall. The straight form and crown of narrow, green, pendulous leaves is ornamental. The tree is generally considered as unsuitable for suburban gardens due to its large size.

Tree Description; Species: *Eucalyptus viminalis – Manna gum*

Circumference at one metre above ground level = 3.830m.
Therefore the tree is identified as a *significant tree* under the current legislation and development controls apply.

I estimate the semi mature tree; with a tapered trunk (possible -fibre buckling within the centre of the tree) to be approximately 40 years, 16 metres in height with a canopy spread of approximately 11m N, 4 m S, 5 m E & 5 m W. It is possible that the tree will live for another 20+years under the current site & environmental conditions. The tree has most likely attained its 'static growth' stage and consequently its maximum height and canopy spread.

The tree exhibits good –fair health with fair form & structure.

The tree exhibits good –fair health with evidence of biotic disease borers and termite activity on the southern side of the tree; currently affecting the health of the tree; however the tree has most likely reached its static growth stage as a consequence of environmental conditions and may develop symptoms of environmental distress (progressive crown thinning & dieback) in the coming years. The species is native to higher rainfall areas.

The primary structure of the tree is formed from a single trunk divides at about 6 metres into three upright, large diameter second order stems. The canopy consists of upright & lateral third order branches that exhibit moderately weak taper that are becoming progressively end weighted.
There was no evidence of significant branch failure.

Branch stubs indicate that some small diameter branches have failed including a one branch that was hanging in the canopy at the time of the inspection.

The canopy contained a small volume of dead wood throughout. At the time of inspection all major stem unions & branches appeared sound.

Sections of the concrete edging, paving & asphalt have been damages as a result of the trees roots.

The trees Root Zone Measurements calculated Re; *The Australian Standard AS 4970-2009 - Protection for trees on development sites.*

Calculations:
Diameter at Breast Height (DBH) = 0.965m
Tree Protection Zone calculations DBH x 12 (AS 4970-2009) = 11.58 m
Semi mature Eucalyptus viminalis: 'Tolerance to Development': fair to poor.

Diameter above root buttress = 1.65m
The Structural Root Zone (SRZ) = 4.15m

***Tree Protection Zone = 11.58 m from the base of the tree.**

***The Structural Root Zone = 4.15 m from the base of the tree.**

Tree 2 Images

Trees 3, 4 & 5*: Species Overview & Description:*

Angophora costata, or *Smooth-barked Apple*, is a large, wide, spreading tree growing to a height of between 15 and 25 m. The trunk is often gnarled and crooked with a pink to pale grey, sometimes rusty-stained bark. The old bark is shed in spring in large flakes with the new salmon-pink bark turning to pale grey before the next shedding. The trees differ in their growth habit, some being pyramidal with straight trunks while others have a more branching habit with twisted trunks.

Tree 3. Tree Description; Species: *Angophora costata*, or *Smooth-barked Apple*

Circumference at one metre above ground level = 2.250m**.**
Therefore the tree is identified as a *Regulated tree* under the current legislation and development controls apply.

I estimate the semi mature tree; the trunk differs in their growth habit, some being pyramidal with straight trunks with lateral branch spreading. I estimate the tree to be approximately 40 years, 10-12 metres in height with a canopy spread of approximately 7m N, 6 m S, 6 m E & 6 m W.

It is possible that the tree will live for another 10+years under the current site & environmental conditions increasing moderately in height and canopy spread.

The tree exhibits good health, form & structure. The tree exhibits good health with no evidence of biotic or abiotic agents currently affecting the health or condition of the tree. The primary structure of the tree is formed from a single trunk divides at about 2 metres into four upright, large diameter second order stems.

The canopy consists of evenly spaced third order branches with relatively good taper however several lower lateral branches are becoming progressively over extended. There was no evidence of significant branch failure.

Branch stubs indicate that some small diameter branches have failed and that some small diameter branches that were overhanging the phone/power lines have been previously removed. Epicormic growth id present at pruning sites.

The canopy contained a small volume of dead wood throughout.
At the time of inspection all major tem unions & branches appeared sound.
Sections of the concrete edging, paving & asphalt have been damages as a result of the trees roots.

The trees Root Zone Measurements calculated Re; *The Australian Standard AS 4970-2009 - Protection for trees on development sites.*

***Calculations:* Diameter at Breast Height (DBH) = 0.709m**
Tree Protection Zone calculations

DBH x 12 (AS 4970-2009) = 8.58 m
Semi mature Angophora costata: 'Tolerance to Development': Fair to good.
Diameter above root buttress = 0.898m
The Structural Root Zone (SRZ) = 3.15m

***Tree Protection Zone = 8.58 m from the base of the tree.**

***The Structural Root Zone = 3.15m from the base of the tree.**

Tree 3 images

Tree 4. Tree Description; Species: *Angophora costata*, or *Smooth-barked Apple*

Circumference at one metre above ground level = 1.930m**.**

Therefore the tree is not identified as a *Regulated tree* under the current legislation and development controls do not apply.

I estimate the semi mature tree to be approximately 30 years, 12 metres in height with a canopy spread of approximately 5m N, 5m S, 5m E, & 5m W. It is possible that the tree will live for another 30+years under the current site & environmental conditions increasing moderately in height and canopy spread.
The tree exhibits good health, form & structure.

The tree exhibits good health with no evidence of biotic or abiotic agents currently affecting the health or condition of the tree. The primary structure of the tree is formed from a single trunk bifurcates at about 1.50 metres into two upright, large diameter second order stems.

The canopy is moderately weighted to the west and consists of evenly spaced predominantly upright third order branches with relatively good taper. There was no evidence of significant branch failure.

Branch stubs and occluding wounds indicate that some small diameter branches have failed and that some small diameter branches that were overhanging the phone/power lines have been previously removed. Epicormic growth is present at pruning sites.

The canopy contains a small amount of dead wood throughout. At the time of inspection all major tem unions & branches appeared sound.

The trees Root Zone Measurements calculated Re; *The Australian Standard AS 4970-2009 - Protection for trees on development sites.*

Calculations:
Diameter at Breast Height (DBH) = 0.658m
Tree Protection Zone calculations DBH x 12 (AS 4970-2009) = 7.89 m

Semi mature Angophora costata: 'Tolerance to Development': Fair to good.

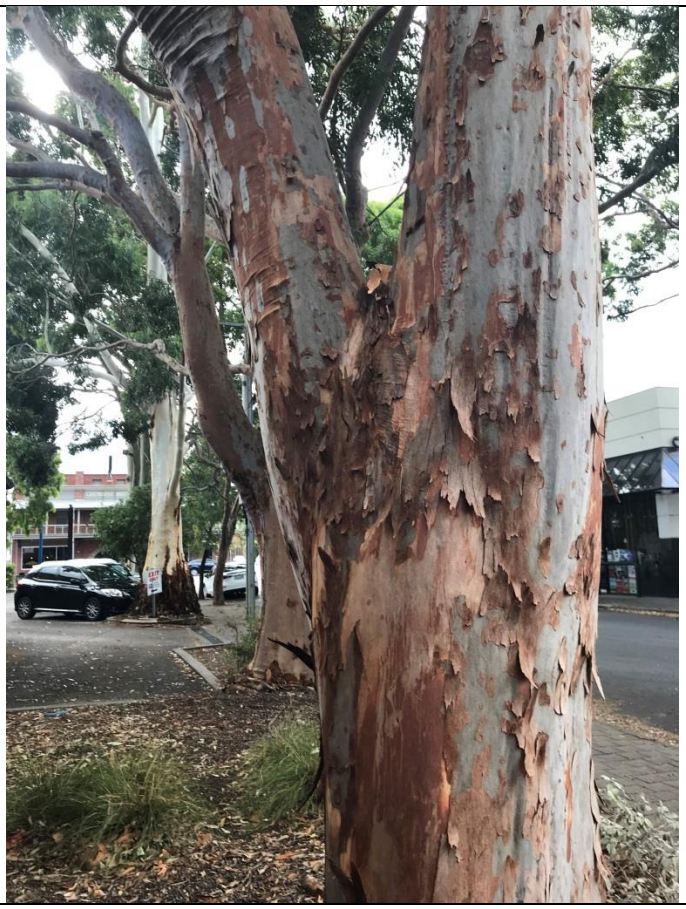
Diameter above root buttress = 0.78m

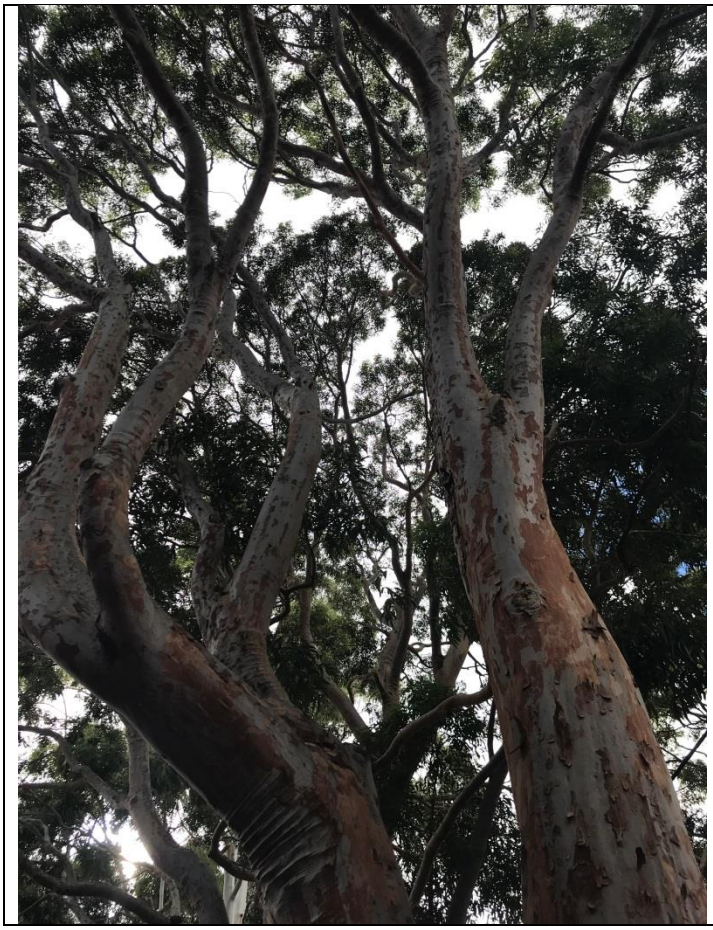
The Structural Root Zone (SRZ) = 3.0m

***Tree Protection Zone = 7.89 m from the base of the tree.**

***The Structural Root Zone = 3.0 m from the base of the tree.**

Tree 4 images





Tree 5

Tree 5. Tree Description;

Species: *Angophora costata*, or *Smooth-barked Apple*

Circumference at one metre above ground level = 1.98m**.**

Therefore the tree is not identified as a *Regulated tree* under the current legislation and development controls do not apply.

I estimate the semi mature tree to be approximately 30 years, 12 metres in height with a canopy spread of approximately 5m N, 5m S, 5m E, & 5m W. It is possible that the tree will live for another 30+years under the current site & environmental conditions increasing moderately in height and canopy spread.

The tree exhibits good health, form & structure. The tree exhibits good health with no evidence of biotic or abiotic agents currently affecting the health or condition of the tree. The primary structure of the tree is formed from a single trunk that divides at about 2 metres into four large diameter second order stems that are upright & spreading in growth.

The canopy is moderately weighted to the west (over the car park) and consists of evenly spaced third order branches with relatively good taper. There was no evidence of significant branch failure; however I observed a medium size branch that recently failed.

Branch stubs occluding; indicate that some small diameter branches have failed and that some small diameter branches that were overhanging the road have been previously removed. Epicormic growth is present at the recent branch failure site.

The canopy contains a small amount of dead wood throughout.

At the time of inspection all major tem unions & branches appeared sound.
Sections of the concrete edging, paving & asphalt have been damages as a result of the trees roots.

The trees Root Zone Measurements calculated Re; *The Australian Standard AS 4970-2009 - Protection for trees on development sites.*

Calculations:
Diameter at Breast Height (DBH) = 0.616m

Tree Protection Zone calculations DBH x 12 (AS 4970-2009) = 7.93 m
Semi mature Angophora costata: 'Tolerance to Development': Fair to good.

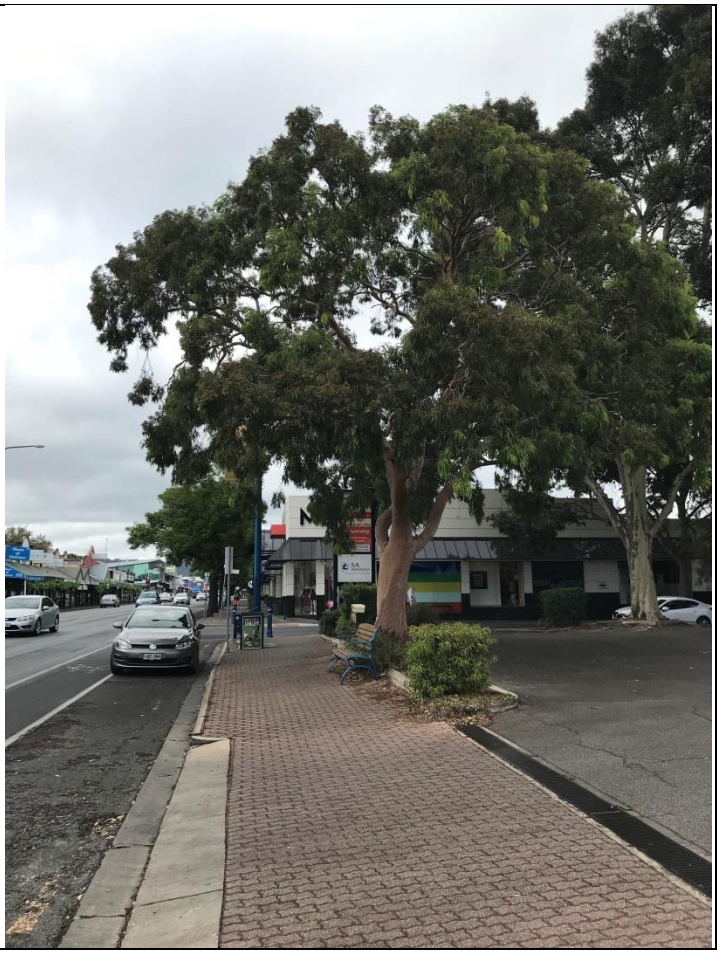
Diameter above root buttress = 0.616m

The Structural Root Zone (SRZ) = 3.0m

***Tree Protection Zone = 7.93 m from the base of the tree.**

***The Structural Root Zone = 3.0 m from the base of the tree.**

Tree 5 Images



Unley Council trees

Trees 6 & 7.

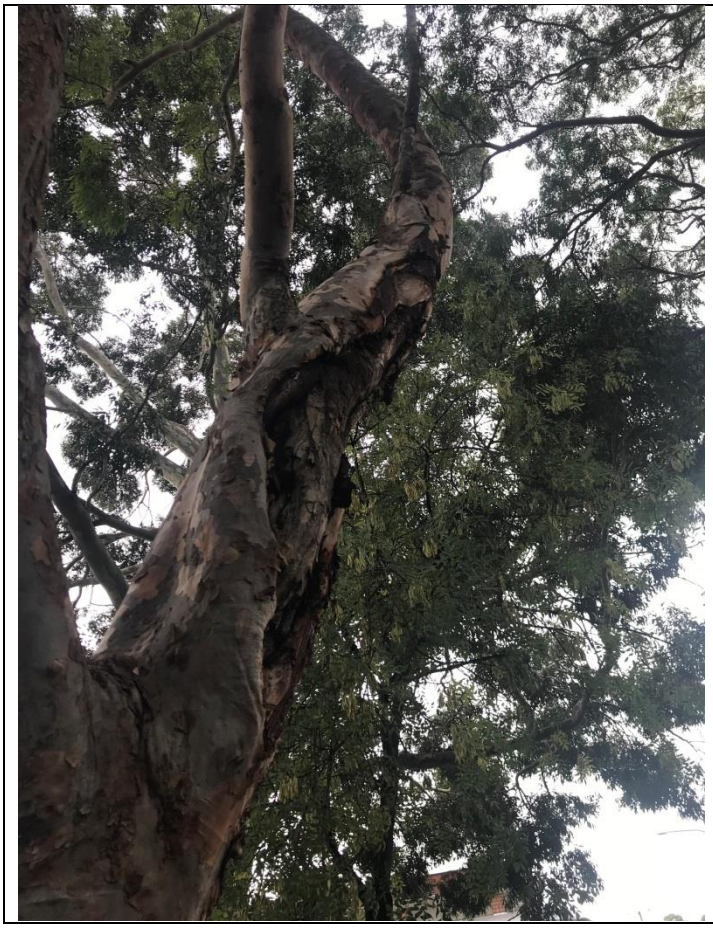
Two semi mature ‘street trees’ are growing on Council land on Opey Avenue.
The trees have limited potential to grow into well-formed trees (subdued by the other trees) due to their location and poor health.

Tree 6. Tree Description;

Species: *Angophora costata*, or *Smooth-barked Apple.*
The young tree exhibits poor health, form & structure. The tree is leaning & overhanging the road. A large wound approximately 2 metres from ground level, 1 metre in length & 30 cm wide on one of the major stems appears to have resulted from vehicle impact.
It is likely that the tree does not meet Vegetation Road Clearance Regulations:

All limbs, branches & foliage are to be vertically clear from the kerb (back to the water table) to a height of 3.5m above the kerb.

The Council may consider that the tree is not worthy of retention and could be removed if required to allow for appropriate development.



Tree 7.

Tree 7. Tree Description;

Species: *Fraxinus angustifolia - Narrow leaf ash.*
The young tree exhibits fair health with poor form & structure with limited potential to grow into a well formed tree due its location.

Council may consider that the tree is not worthy of retention and could be removed if required to allow for appropriate development.

The remaining trees are non-regulated trees within the rear car park (**See image 2** for further tree locations)

Trees 8-15 are not subject to development controls and could be removed without Council consent:

Trees 8 - 14 are growing along the western boundary:

Tree 8: *Melaleuca armillaris. - Bracelet honey myrtle.*

Trees 9, 10 & 12. *Allianthus altissima - Tree of heaven.*

Trees 11, 13, 14. *Cupressus laylandii – Cyprus.*

Tree 15 *Species:* *Callistemon harkness – Bottle brush.*

Endnotes

1. Part 2 Amendment of Development Act 1993 4 Amendment of Section 4. Sub regulations (1) and (2) The Act controls "tree damaging activities' in relation to a regulated tree and or 'significant tree' by defining it to be 'Development'. Trunk circumference of 2.0 metres or more; are measured 1.0 metre above natural ground level within the metropolitan Adelaide and townships in the Adelaide Hills qualify as 'Regulated trees'.
Trees with a trunk circumference of 3.0 metres or more, measured 1.0 metre above natural ground level within the metropolitan Adelaide and townships in the Adelaide Hills qualify as 'significant trees'. Trees with multiple trunks and have an average stem size of 625mm >.
Part 2 Variations of Development Regulations 2008 4 Sub regulations (1) and (2) do not apply Regulated and Significant trees (8) 'Tree damaging activities' in section 4(1) of the Act, pruning-

(a) That does not remove more than 30% of the crown of the tree; and
(b) that is required to remove-
(i) dead or diseased wood;
(ii) branches that pose a material risk to a building; or
(ii) branches to a tree that is located in an area frequently used by people and the branches pose a material risk to such people, is excluded from the ambit of that definition. Breaches of the act can incur a fine up to $60,000.00.

2. The Australian Standard: AS4373 – 2007 *'Pruning of Amenity Trees'* provides a minimum pruning standard based on the widely accepted theories of compartmentalisation of decay/dysfunction in trees (CODIT) that must be applied for all tree's. Pruning should only be carried out by trained and experienced Arboricultural technicians under the supervision of an AQF level 4 or higher qualified Arborist.
3. The minimum Arboricultural qualification required to enable effective decision making with regard to tree health, stability and safety issues is AQF (Australian Qualification Framework) Level 3. As with all professions, a level of experience proportionate with the task being undertaken is essential, regardless of qualifications.
4. Planting of trees should be avoided near the foundations of the house or neighbouring house on reactive sites as they can cause damage due to the drying out of the clay at substantial distances. To reduce, but not eliminate the possibility of damage, tree planting should be restricted to a distance from the house of:

1. 1.5 x mature height for class E (extremely reactive) sites.
2. 1 x mature heights for class H (highly reactive) sites.
3. 0.75 x mature height for class M (moderately reactive) sites.

AS2870-1996 Residential slabs and footings – Construction p53

5. Root protection zone (RPZ) A specified area below ground and at a given distance from the trunk set aside for the protection of tree roots to provide for the viability and stability of a tree to be retained where it is potentially subject to damage by development. **NOTE:** Establishment of these areas may include root investigation and mapping, root pruning and installation of root barriers or other protection measures at the edge of the RPZ to prevent conflict between roots and works.

6. Structural root zone (SRZ) The area around the base of a tree required for the tree's stability in the ground. The woody root growth and soil cohesion in this area are necessary to hold the tree upright, so the entire profile (depth) of the root zone is included in the structural root zone. The SRZ is nominally circular with the trunk at its centre and is expressed by its radius in metres. This zone considers a tree's structural stability only, not the root zone required for a tree's vigour and long-term viability, which will usually be a much larger area.

7. Tree protection zone (TPZ) The combined area of the root protection zone (RPZ) and crown protection zone (CPZ) as an area set aside for the protection of a tree.

8. Vigour is the ability of a tree to sustain its life processes, as used in the Standard for calculating the minimum RPZ. NOTE: The term 'vigour' in this document is synonymous with commonly used terms such as 'health' and 'vitality'.

9. Included Bark Crotches are potential structural weaknesses that occur in trees between the main stem and a branch or between leaders of equal size (co dominant stems). Bark between the stems turns downwards and prevents the interlocking of wood fibres rather than upwards (as in structurally sound crotches) to form a branch bark ridge. This defect is under genetic control and may be repeated throughout the tree, or occur in only one crotch. The position of an included bark crotch may be more serious than those higher in a tree. Depending upon the severity of the defect, the trees age and the species involved, it may be possible to prune the affected portion and or install protective cables in trees with bark inclusions in order to reduce the risk of failure. Bark inclusions that do not display signs of structural instability and or are in trees at sheltered locations are unlikely to present an unacceptable level of risk and may not warrant Arboricultural intervention.

9.1. The bark on the inner side of the branch union, or is within a concave crotch that is unable to be lost from the tree and accumulates or is trapped by acutely divergent branches forming a compression fork.

9.2. Growth of bark at the interface of two or more branches on the inner side of the branch union collar and the collars roll past one another without forming a graft where no one collar is able to subsume the other. Risk of failure is worsened in some taxa where branching is acutely or acutely convergent and ascending or erect.

10. Sudden Limb Failure (SLF) is a common problem for many species of trees including exotic trees. It almost always affects limbs held in a horizontal or near horizontal plane, though more upright limbs have also failed due to SLF. Predisposing factors include a low angle of attachment, reduced limb taper, relative branch exposure, limb over-extension and in particular, a concentration of weight towards the end of the limb.

Defects do not have to be present, though when wounds or decay are present they exacerbate the risk of SLF. The mechanisms involved in SLF are complex and relate to the production of Phenols and Turpenes produced as part of the CODIT process (Compartmentalization of Decay in Trees) in Wall 4 by the trees internal chemical protection system. Trigger factors include prior strong winds and usually, though not always, the likelihood of failure is influenced by increased in temperature and moisture stress. SLF remains one of the highest risk elements in tree management and is certainly the least well understood. Expert advice and careful crown management can significantly reduce the risk of SLF where tree structure is suitable for well-targeted pruning.

11. The Landscape Below Ground 11 proceedings of an international Workshop on tree Root Development in Urban Soils. Dr Dan Neely Dr Gary W. Watson

12. It is commonly thought that a healthy tree tolerates the removal of up to one third of its root as noted by Harris 1992 and Helliwell 1985 as cited in Matheny and Clark 1998 Trees and Development A Technical Guide to Preservation of Trees During land Development (International Society of Arboriculture, Indiana) p72. It is also stated that healthy trees are more tolerant to root disturbance while trees with low vigour are less tolerant.

13. Trees and Development A Technical Guide to preservation of Trees During Land Development Nelda Matheny and James R Clark Pages 84 and 85.

14. Windthrow Tree failure and collapse when a force exerted by wind against the crown and trunk overcomes resistance to that force in the root plate, such that the root plate is lifted from the soil on one side as the tree tips over.

15. Where epicormic growth occurs, it is a response from lopping/felling. Any epicormic growth is weaker than that of a normal growth patterns. The competing stems prevent the development of sound structures, and would require specialised Arboricultural management over an extended period to improve the structure of the tree minimising the risk of failure; not a viable option.

Most trees typically grow away from each other towards the light rather than staying upright by means of tension-wood formation, then their growth in thickness acts like a set of wedges to drive them apart at the base of the stem cluster. This means that the cluster is suicidally programmed to fall apart (Mattheck and Breloer 03).

At the base of some of the epicormic growth are areas of included bark[9]. Low included bark crotches may be more serious than those higher in the tree. Due to the tree having co-dominant leaders at the base (Shigo 86) has stated “that a fork comprising of co-dominant leaders is somewhat weaker than a junction between a main stem and subsidiary branches”. Lopped trees are more likely to succumb to the effects of environmental stresses such as drought and soil compaction. Crown regeneration brought about as a result of tree lopping practices gives rise to safety issues that can have substantial legal implications for residents, neighbours, Councils or other tree managers.

Extent of Assessment / Report Limitations/Constraints.

This report has made observations and recommendations with limited tools and in good faith by the reliable method of VTA (visual tree assessment) developed to an international standard. The trees were not climbed to seek out any unforeseeable anomalies.

This report only covers identifiable defects and issues present at the time of inspection. The author accepts no responsibility or can be held liable for any structural defects or unforeseen event/weather conditions that may occur after the time of the inspection and assessment, unless clearly specified within timescales detailed within the report.

The author cannot guarantee trees contained within the report will be structurally sound under all circumstances and cannot guarantee that the recommendations made will categorically result in the tree being made safe.

Unless specifically mentioned, this report will only be concerned with issues above ground, and are undertaken visually.

Sophisticated equipment such as ground penetrating radar and sonic tomography was not employed to obtain visual information of the timber quality within the trunk or the status of the root plate beneath the ground. I assessed the health and structure of the trees and looked for evidence of *biotic disease and abiotic disease/distress. It must be noted that trees are dynamic living organisms and can do the unexpected. Tree health and structure often changes with time and therefore the observations and recommendations made by this report are related to what was reasonably foreseeable at the time of inspection.

It is suggested that trees are living entities and as such are subject to forces and influences out of the control of the author. The recommendations are made on the basis of what can be reasonably identified at the time of the inspection; therefore the author accepts no liability for any recommendations made.

Care has been taken to provide information that is based on sound arboriculture practices and standards. The author accepts no liability for actions undertaken by third parties in undertaking any of the arboriculture work as recommended. All data has been verified and based on sound arboriculture standards, however the author cannot guarantee nor is responsible for the accuracy of information supplied by third parties.

Note: This report is valid for three months from the report date.

PROPOSED MIXED-USE DEVELOPMENT
248 UNLEY ROAD, HYDE PARK

TRAFFIC AND PARKING REPORT

CIRQA™

DISCLAIMER

DOCUMENT CONTROL

Report title:	Proposed Mixed-Use Development, 248 Unley Road, Hyde Park
Project number:	17214
Client:	Citify Group
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1. INTRODUCTION

CIRQA has been engaged by Citify Group to provide design and assessment advice for a proposed new mixed-use development at 248 Unley Road, Hyde Park. Specifically, CIRQA has provided 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 on plans prepared by Citify (Sheet no. PL.00 to PL.19A, revision A, dated 13 March 2018, refer Appendix A).

2. BACKGROUND

2.1 SUBJECT SITE

The subject site is located on the north-western corner of the Unley Road and Opey Avenue intersection, Hyde Park, and comprises five parcels of land. The site is bound to the north by commercial premises, Unley Road to the east (with commercial premises on the eastern side), Opey Avenue to the south (with Unley Metro on the south) and residential dwellings to the west. The City of Unley's Development Plan identifies that the site is located within an Urban Corridor Zone (Policy Area 20 – Unley Road High Street).

The site is currently occupied by a variety of commercial premises and associated car parking. Vehicle access to the site is currently provided via one crossover on Unley Road and two crossovers on Opey Avenue. Pedestrian and cyclist access to the site is currently provided via the site's frontages to Unley Road and Opey Avenue.

Figure 1 illustrates the location of the subject site and the adjacent road network.

Figure 1 – The location of the subject site with regard to the adjacent road network

2.2 PREVIOUS PROPOSAL

A development application for a multi-storey mixed-use building at 244-248 Unley Road, Hyde Park, was previously lodged to and approved by the State Commission Assessment Panel (SCAP, previously the Development Assessment Commission). The approved development consisted of 150 residential dwellings, approximately 470 m² of commercial floor area and was proposed to be serviced by 211 on-site parking spaces. Access to the site was approved via two-way crossovers on Hart Avenue and Opey Avenue.

Of particular interest, the proposed development had a theoretical parking requirement of 333 spaces when assessed against the applicable 'raw' requirements (i.e. not-discounted and no consideration to shared parking opportunities) of Council's Development Plan (a theoretical shortfall of 122 parking spaces). However, it is noted that the proposal was accepted by DAC on the basis of alternate residential parking rates (from the NSW Roads and Maritime Services' "*Guide to Traffic Generating Developments*" (the RMS Guide)) being adopted.

2.3 ADJACENT TRANSPORT NETWORKS

2.3.1 ACTIVE TRANSPORT

The subject site has a high-level of connectivity to the adjacent pedestrian (footpath) network. Footpaths are provided immediately adjacent the site's frontages on Unley Road and Opey Avenue. Pedestrian crossing movements are facilitated at the Unley Road/Opey Road intersection via kerb ramps with tactile markings.

Bicycle movements are accommodated on Unley Road within designated bicycle lanes (operational from Monday to Friday between 7:30 am and 9:00 am for northbound movements and Monday to Friday between 4:30 pm and 6:00 pm for southbound movements). Bicycle movements are also accommodated on Opey Avenue under a standard shared arrangement.

2.3.2 PUBLIC TRANSPORT

Frequent public transport (bus) services operate along Unley Road, with stops located within 40 m of the subject site. Key bus routes operating along Unley Road include:

- Route 190 - Glenelg Interchange to City;
- Route 190B – City to Mitcham Square;
- Route 195 and 195F – Blackwood Station to City:
- Route 196 and 196F – Blackwood Station to City; and
- Route AO24 – Mitcham Square to Adelaide Oval (special service).

Train services also operate from Millswood Railway Station, located approximately 2 km from the subject site.

2.3.3 ROAD NETWORK

Unley Road is an arterial road under the care and control of the Department of Planning, Transport and Infrastructure (DPTI). Adjacent the site, Unley Road comprises two traffic lanes in each direction, with adjacent bicycle lanes on both sides. On-street parking is permitted on the western side of Unley Road only (adjacent the site) within an indented parking bay (restricted to one hour between 9:00 am to 5:00 pm Monday to Friday, and 9:00 am to 12:00 pm on Saturday). No parking is permitted when bicycle lanes are operational (i.e. clearway restrictions apply). Traffic data obtained from DPTI indicates that Unley Road (adjacent the site) has an Annual Average Daily Traffic (AADT) volume in the order of 26,100 vehicles per day (vpd), of which 2.5% are commercial vehicles. Unley Road is subject to a 60 km/h speed limit.

Opey Avenue is a local road under the care and control of the City of Unley. Adjacent the site, Opey Avenue comprises a 7.8 m wide carriageway (approximate), accommodating two-way traffic movements. Speed humps have been installed along the length of Opey Avenue between Unley Road and King William Road. Unrestricted on-street parking is permitted on both sides of Opey Avenue (outside of the intersection clear zones). Traffic data obtained from the previous assessment indicates that Opey Avenue has an AADT in the order of 1,350 vpd. Opey Avenue is subject to a 40 km/h speed limit.

Unley Road, Opey Avenue and Cremorne Street intersect at a priority controlled (Stop) staggered T-intersection, at which Unley Road forms the priority. All turning movements are permitted at the intersection. It should be noted that Cremorne Street intersects with Unley Road 12 m to the south of the Opey Avenue intersection.

2.3.4 TRAFFIC VOLUME DATA

Traffic data (in the form of turning movement volumes) has been obtained for the Unley Road, Opey Avenue and Cremorne Street intersection. The data was collected by Phil Weaver & Associates in April 2014 as part of the previous development proposal. The data identifies that the am peak hour occurred between 8:30 am and 9:30 am and the pm peak hour between 5:00 pm and 6:00 pm. Figure 2 illustrates the April 2014 am (and pm) peak hour turning movement volumes at the Unley Road, Opey Avenue and Cremorne Street intersection.

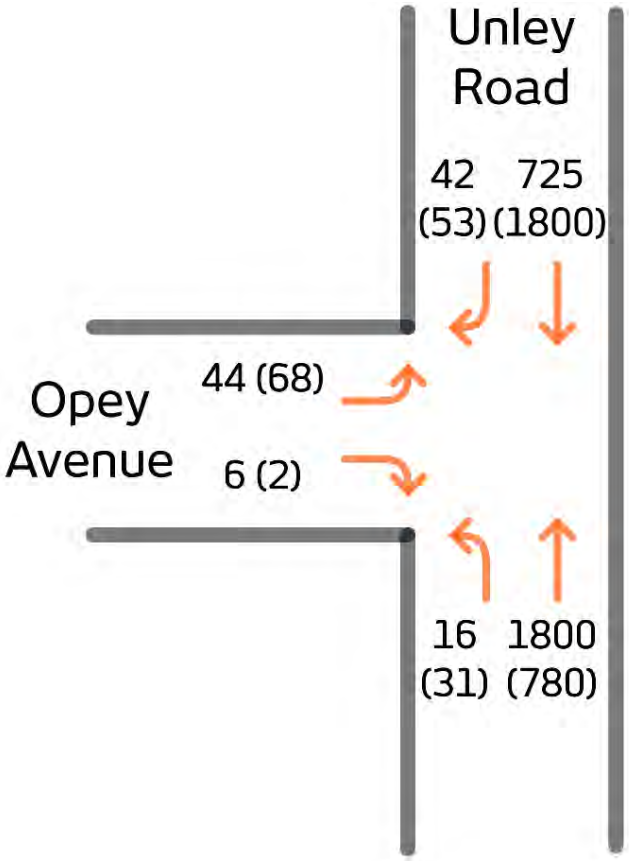


Figure 2 – 2014 peak am (pm) turning movement volumes at the Unley Road/Opey Road/Cremorne Street intersection

Traffic data (at the intersection of Unley Road, Park Street and Wattle Street) has also been obtained from DPTI in order to determine the growth in traffic volumes on Unley Road since 2014. The data was obtained for the same week-long period in 2014 and 2017 and could then be forecast to 2018. However, the data identified that traffic volumes have decreased over this period (in the order of 1,000 vehicles per year). As such, the traffic volumes identified in the 2014 turning movement survey (Figure 2) have been used for the purposes of this assessment. A detailed traffic impact analysis has been undertaken and is outlined in Section 5.

3. PROPOSED DEVELOPMENT

The proposal comprises the demolition of the existing buildings on the subject site and the construction of six 3-bedroom townhouses on the western portion of the subject site. Each townhouse will contain a dual-car garage.

On the eastern portion of the site, it is proposed to construct a multi-storey building comprising the following components:

- 830 m² of commercial floor area (comprising of 496 m² of commercial floor area and 334 m² of SOHO floor area);
- 12 x studio apartments;
- 3 x one-bedroom apartments;
- 25 x two-bedroom apartments;
- 23 x three-bedroom apartments; and
- ancillary circulation and back-of-house areas.

The multi-storey component of the development will be serviced by a 90-space basement car park (split over two basement levels). A further 11 customer spaces will be provided at-grade (in an under-croft parking area).

The parking areas and garages will comply with the requirements of the Australian/New Zealand Standard for *"Parking Facilities – Part 1: Off-street car parking"* (AS/NZS 2890.1:2004) and the Australian/New Zealand Standard for *"Parking Facilities – Part 6: Off-street Parking for People with Disabilities"* (AS/NZS 2890.6:2009) in that:

- employee and visitor parking spaces will be 2.4 m wide and 5.4 m long;
- customer parking spaces will 2.6 m wide and 5.4 m long;
- disabled parking spaces will be 2.4 m wide and 5.4 m long with an adjacent shared space of the same dimension;
- garages will have an internal width of 5.7 m and a door opening width of 4.8 m;
- parking aisles will be at least 5.8 m wide (in excess of 6.2 m wide adjacent customer parking spaces);
- 1.0 m end-of-aisle extensions will be provided beyond the last parking space in a parking aisle;
- columns will be located outside of the car clearance envelope;
- 0.3 m clearance will be provided (where applicable) to all objects greater than 0.15 m in height;
- a head-height of at least 2.2 m will be provided; and
- ramps (residential and employee access only) will have a maximum gradient of no steeper than 1 in 4 m, with at least 2 m transition gradients of 1 in 8 m.

Bicycle parking will be provided in the form of vertical bicycle rails. A total of 20 bicycle parking spaces will be provided at-grade for use by tenants, visitors and employees of the site. A further 67 bicycle parking spaces will be provided in front

of parking spaces within the basements (built in to the various storage units). Additional parking opportunities are available within the garage areas of the proposed townhouses. All bicycle parking shall comply with the requirements of the Australian Standard for *"Parking Facilities – Part 3: Bicycle Parking"* (AS 2890.3:2015).

An additional four spaces will be provided within the basement parking area for scooters/motorcycles.

The various parking areas and garages will be accessed from a 6.1 m wide common roadway (inclusive of clearances). Such a width conforms to the requirements of AS/NZS 2890.1:2004 for two-way roadways.

Vehicle access to the site will be provided via a new 6.1 m wide crossover on Opey Avenue (inclusive of 0.3 m clearance on both sides). All existing crossovers will be closed and reinstated as kerb. All turning movements will be permitted at the proposed crossover. The crossover has been designed to facilitate simultaneous B99 vehicle turning movements. No vehicle access is proposed to the site directly via Unley Road (as identified in Concept Plan Map Un/2A of Council's Development Plan, refer Appendix B). Pedestrian sightline provisions have been accommodated at the proposed access point in accordance with Figure 3.3 of AS/NZS 2890.1:2004.

Figure 3 illustrates the simultaneous turning movements of a B99 vehicle at the site's proposed crossover on Opey Avenue.

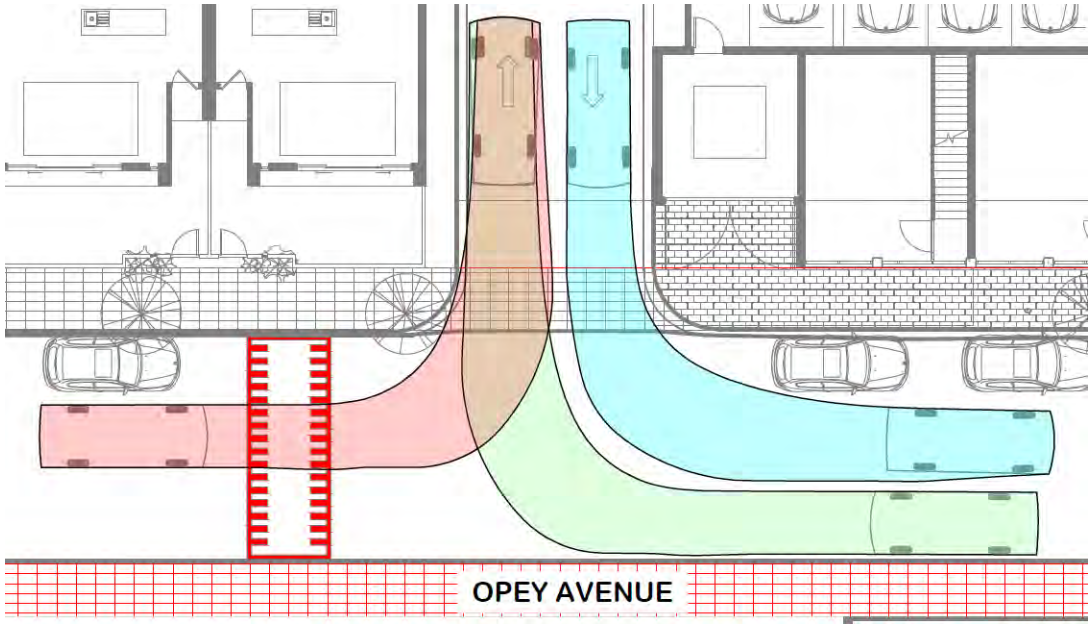


Figure 3 – Simultaneous turning movements at the site's proposed crossover on Opey Avenue

Pedestrian and cyclist access to the site will be provided via the site's frontages to Unley Road and Opey Avenue. However, pedestrians and cyclists wishing to access the townhouses will only be able to do so via Opey Avenue.

Refuse collection and loading is proposed to occur on-site adjacent the common roadway. The site has been designed to accommodate commercial vehicles up to 8.8 m in length. Such vehicles will be able to enter and exit the site in a forward direction. A head height of 3.8 m has been provided above all areas where commercial vehicle movements will occur. Figure 4 illustrates the turn path of an 8.8 m refuse collection vehicle accessing the subject site.

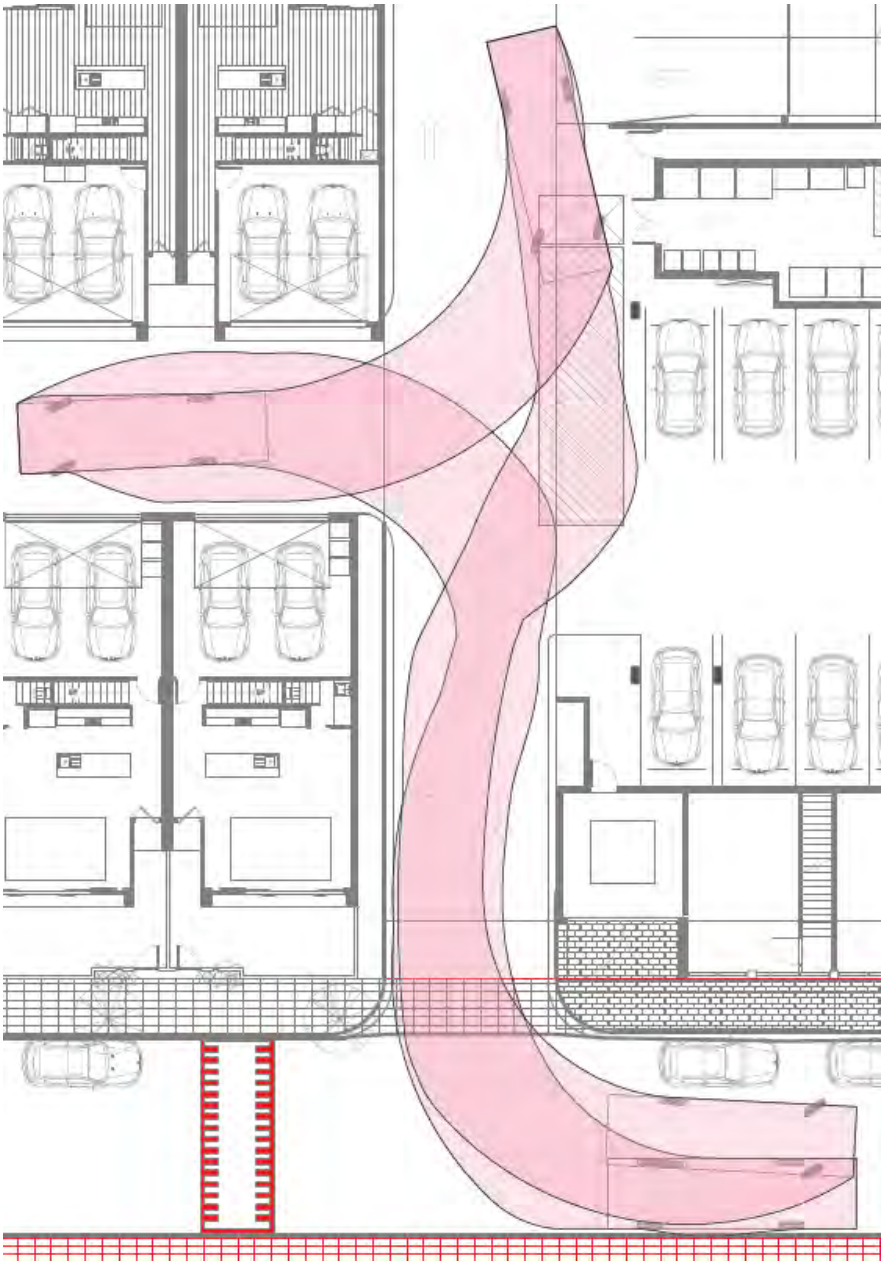


Figure 4 – An 8.8 m commercial vehicle accessing and manoeuvring within the subject site

It should be noted that it is proposed to retain the indented parallel parking spaces immediately adjacent the site on Unley Road. No changes to current Unley Road parking controls (hours, time limits etc.) are proposed as part of the development. However, given that the existing crossovers will be reinstated as kerb, an additional three on-street parking spaces will be accommodated (one on Unley Road and two on Opey Avenue).

4. PARKING ASSESSMENT

4.1 VEHICLE PARKING

The City of Unley's Development Plan identifies the following vehicle parking requirements relevant to the proposed development:

- Non-residential development – three parking spaces per 100 m² of gross leasable floor area; and
- Residential (group dwellings and residential flat buildings) – 0.75 spaces per 1-bedroom dwelling, 1.25 spaces per 2-bedroom dwelling and 1.75 spaces per 3-bedroom dwelling PLUS 0.25 visitor spaces per dwelling.

It should be noted that the subject site is located within a 'Designated Area' (Urban Corridor Zone), as identified by the City of Unley's Development Plan. However, Council's Development Plan only identifies reduced parking requirements for 'non-residential' land uses for sites located within such zones. As such, the standard residential parking requirements of Council's Development Plan (identified above) have been adopted.

Based upon the above parking rates, Table 1 illustrates a breakdown of the theoretical parking requirement of each component within the proposal, as well as the number of parking spaces allocated to each use.

Table 1 – Breakdown of the theoretical parking requirement associated with each use based upon regular parking rates.

Use	Theoretical req. (based on Council's Dev. Plan)	No. of allocated parking spaces	Comment
Townhouses	11	12	1 additional
Apartments	86	65	21 space shortfall
Visitor parking	18	14*	4 space shortfall
Commercial	25	25	No shortfall

**inclusive of three on-street parking spaces reinstated adjacent the directly adjacent the subject site.*

With regard to the proposed townhouses, 12 parking spaces will be provided within double garages. As such, Council's parking requirement for the residential townhouse component of the proposed development is satisfied.

The theoretical parking requirement associated with the remaining components of the proposal would be required to be accommodated within at-grade and basement parking areas. It should be noted that the three on-street parking spaces reinstated as a result of the closure of existing crossovers have also been included in this assessment (however only within the visitor component).

Based upon the requirements of Council's Development Plan identified above, Table 1 indicates that the theoretical parking requirement of the commercial component of the proposal will be satisfied.

Given that the theoretical parking requirement associated with the townhouse (resident) and commercial components of the proposed development are satisfied, no further assessment of these components has been undertaken.

However, Table 1 illustrates that a theoretical shortfall (against the base Development Plan rates) of 21 parking spaces would be associated with the apartments (resident component) and a further 4-space shortfall associated with visitors to the site (i.e. visitors to both the townhouses and apartments).

Whilst the above parking assessment identifies a theoretical parking shortfall, consideration has not been given to the peak parking demands of various components occurring consecutively (i.e. at different times). Such a scenario is common as, for example, the peak parking demand associated with visitors to the residential component will likely occur outside of business hours (i.e. when there is little, or no parking demand associated with the commercial component). As such, it is considered that there is an opportunity for shared parking arrangements to occur within the site (i.e. a 'mixed-use' scenario).

Furthermore, the City of Unley's Development Plan identifies that for sites located within 'designated areas' (as is the subject site) that:

> *"3. ... A lesser number of parking spaces* [to that identified in the vehicle parking rates tables applicable to designated areas] *may be provided based on the nature of the development and parking conditions in the wider locality including (but not limited to) the following:*
>
> *(a) the development is a mixed use development with integrated (shared) parking where the respective peak parking demands across the range of uses occurs at different times...*

(e) *generous on-street parking …* [is] *available and in convenient proximity, other than where such parking may become limited or removed by the future loss of access, restrictions, road modifications or widening."*

Based upon the above, it is considered acceptable to apply lower parking requirements to the proposed development as, importantly, contemplated by Council's Development Plan.

It is noted that the City of Unley's Development Plan identifies lower residential parking requirements for developments located within 'designated areas' that are zoned as District Centre Zone. Whilst the subject site is within an Urban Corridor Zone, the City of Unley's District Centre Zone is located within 150 m of the subject site (to the north). As such, parking requirements applicable to the District Centre Zone are considered an appropriate benchmark for reduced parking rates to be applied to the proposed development.

It should be noted that the residential parking requirements applicable to residential flat buildings within the District Centre Zone are similar to that of Aurecon's *"Parking Spaces for Urban Places: Car Parking Study"* for mixed-use developments. Such rates could also be applied to the proposed development and, accordingly, provide further justification as to the appropriateness of the reduced residential parking rates applicable within District Centre Zones.

Council's Development Plan identifies the following reduced residential parking requirements (for the District Centre Zone) which are considered to be appropriate for application to the proposed development:

- Residential (detached, semi-detached, group and row dwellings) – one space per 1-bedroom and 2-bedroom dwelling and two spaces per 3 or more bedroom dwelling;
- Residential (Residential flat buildings) – 0.25 spaces per studio, 0.75 spaces per 1-bedroom dwelling, one space per 2-bedroom dwelling and 1.25 spaces per 3 or more bedroom dwelling PLUS 0.25 visitor spaces per dwelling.

On the basis of the reduced rates (District Centre Zone parking requirements), Table 2 illustrates a breakdown of the theoretical parking requirement of each component within the proposal, as well as the number of parking spaces allocated to each use.

Table 2 – Breakdown of the theoretical parking requirement associated with each use based upon District Centre Zone parking rates.

Use	Theoretical req. (based on District Centre)	No. of allocated parking spaces	Comment
Townhouses	12	12	No shortfall
Apartments	59	65	6 additional spaces
Visitor parking	16	14*	2 space shortfall
Commercial	25	25	No shortfall

**inclusive of three on-street parking spaces reinstated adjacent the directly adjacent the subject site.*

With regard to the proposed townhouses and commercial components, Table 2 indicates that the number of spaces allocated within the development will adequately satisfy the reduced parking requirement (i.e. no parking shortfall will be associated with the townhouse or commercial components).

Furthermore, a more realistic assessment of the site's residential parking requirement utilising reduced (District Centre Zone) rates indicates that a surplus of six spaces will be associated with the residential apartments.

However, with regard to the residential visitor component, a shortfall of two spaces may occur. Such a shortfall is low and would be readily accommodated on-street adjacent the site. Furthermore, the peak parking demand associated with the visitor component would occur after hours (i.e. regular business hours) at which time, demand for adjacent on-street spaces would be low.

It should also be noted that a further four motorcycle/scooter spaces will be provided within the basement parking areas. Whilst not considered in the above assessment, such a provision allows for diversification in transport modal choice and assists in reducing reliance on private vehicles. Similarly, the proposal also includes a high level of bicycle parking provision (as discussed below) which will also assist in minimising reliance on private motor vehicles.

4.2 BICYCLE PARKING

The City of Unley's Development Plan identifies the following vehicle parking requirements relevant to the proposed development:

- Residential component of multi-storey building – one space for every two dwellings for residents PLUS one space for every six dwellings for visitors;
- Office (SOHO) – one space for every 150 m² of gross leasable floor area for employees PLUS two spaces plus one space per 500 m² of gross leasable floor area for visitors; and

- Shop (commercial) – one space for every 300 m² of gross leasable floor area for employees PLUS one space for every 600 m² of gross leasable floor area for visitors.

Based upon the above parking rates, the proposed development would have a theoretical parking requirement for 32 residential bicycle spaces, five employee bicycle spaces and 16 visitor bicycle spaces. Given that 87 spaces will be provided on the subject site (of which 67 will be provided within the basement parking area), the bicycle parking requirements of Council's Development Plan are considered to be satisfied.

5. TRAFFIC ASSESSMENT

The RMS Guide (and its subsequent updates) identifies the following peak hour traffic generation rates:

- Medium-density residential flat building (townhouses) – 0.5 to 0.65 peak hour trips per three or more-bedroom dwelling;
- High-density residential flat dwellings (apartments) - 0.53 am and 0.32 pm peak hour trips per dwelling; and
- Office – 1.6 am and 1.2 pm peak hour trips per 100 m² of gross floor area.

The RMS 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. This is due to the large-scale nature and variety of offerings of a shopping centre compared to that of the proposal. In reality, it would be expected that the retail (commercial) component would generate in the order of 7.5 to 9.0 peak hour trips per 100 m²of floor area. Such rates have recently been adopted (and accepted) for small retail shops throughout metropolitan Adelaide.

It should also be noted that during the am peak hour generation of 'shops' is typically 50% of that associated with the pm peak hour. As such, rates of 4.5 am and 9.0 pm trips per 100 m² have conservatively been adopted for this assessment.

Based upon the above traffic generation rates, it is forecast that the proposed development will generate in the order of 65 am and 73 pm peak hour trips.

In order to determine the development's potential impact on the adjacent road network, a high-level traffic distribution has been undertaken. For the purposes of this assessment, the following assumptions have been assumed:

- Residential – 30% will enter and 70% will exit the site during the am peak hour (and vice versa during the pm peak hour);
- Commercial – 75% will enter and 15% will exit the site during the am peak hour and 50% will enter/exit the site during the pm peak hour;
- Office (SOHO) – 80% will enter the site and 20% will exit the site during the am peak hour (and vice versa during the pm peak hour);
- 20% of traffic will enter/exit the site via Opey Avenue, west of the proposed development (i.e. left-in/right-out movements from the subject site);
- 80% of traffic will enter/exit the site via Opey Avenue, east of the proposed development (i.e. via the Unley Road/Opey Avenue intersection).

Figure 5 illustrates the forecast traffic volumes at the site access/Opey Avenue intersection during the am (pm) peak hours.

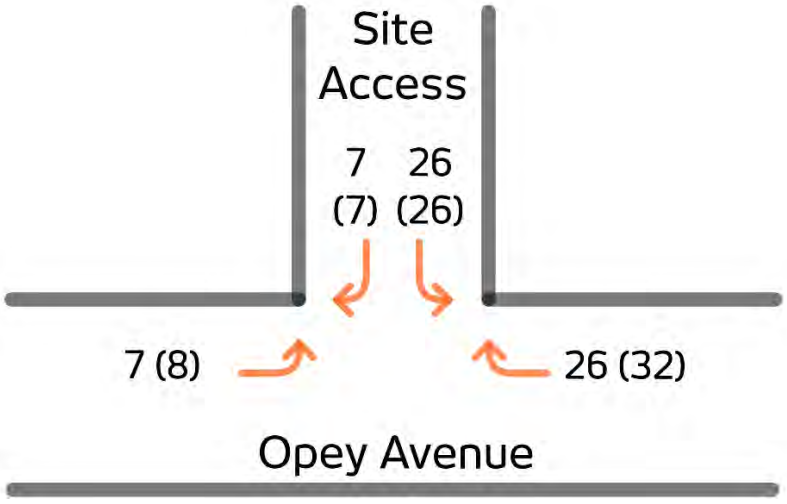


Figure 5 – Forecast traffic volumes at the site access/Opey Avenue intersection during the am (pm) peak hours

It should be noted that for the purposes of this assessment, the intersection has been modelled as a 'T-intersection' (i.e. Cremorne Street has been excluded) due to negligible movements between Opey Avenue and Cremorne Street. Such an approach was also undertaken by Phil Weaver & Associates in the site's previously approved Development Application and, as such, is still considered appropriate for the purposes of this assessment.

Figure 6 illustrates the additional traffic volumes that are forecast to be distributed to the Unley Road/Opey Avenue intersection during the am (pm) peak hours.

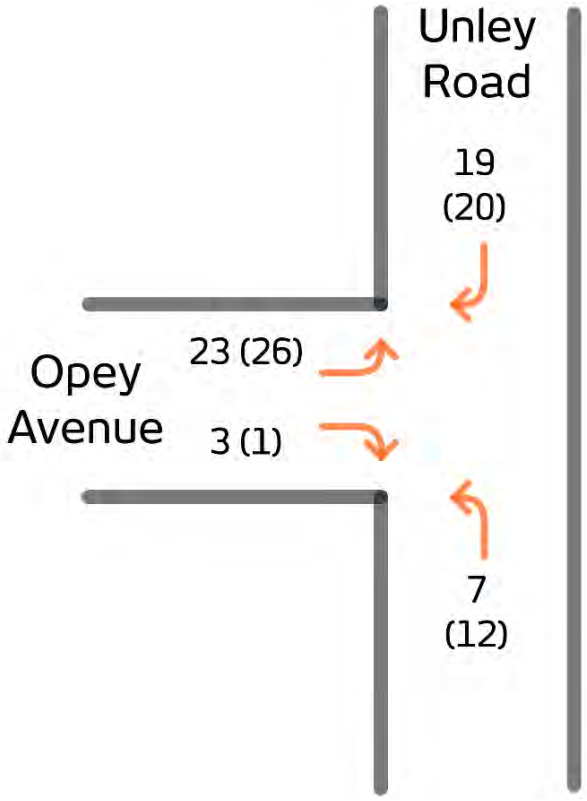


Figure 6 – Forecast additional traffic volumes at the Unley Road/Opey Avenue intersection during the am (pm) peak hours

Based upon the above assumptions, CIRQA has undertaken SIDRA Intersection modelling of the Unley Road/Opey Avenue intersection. All SIDRA output is attached in Appendix C. Modelling of existing traffic volumes (Figure 2) has been undertaken in order to provide a 'base' for comparison of the development's potential impact on the adjacent intersection. Further modelling of 'future scenarios' (i.e. existing traffic volumes plus forecast development traffic volumes) has also been undertaken in order to determine the site's potential traffic impact.

The following SIDRA Intersection modelling is considered to be conservative given that traffic volumes generated by the existing site have not been taken into consideration (i.e. existing volumes generated by the site have not been removed from the existing traffic volumes identified at the Unley Road/Opey Avenue intersection). Furthermore, comparison of 2014 and 2017 traffic volumes indicate that traffic volumes have decreased on Unley Road since the data was collected at the intersection, thereby providing a conservative assessment.

Table 3 illustrates the existing operating conditions of the Unley Road/Opey Avenue intersection during the am and pm peak hours.

Table 3 –Existing operating conditions of the Unley Road/Opey Avenue intersection during the am and (pm) peak hours

Turning movement	Degree of Saturation	Delay (s)	95th %ile Queue (m)
Unley Rd (N) – Through	0.354 (0.537)	3.4 (0.7)	20.2 (16.4)
Unley Rd (N) – Right turn	0.354 (0.537)	39.1 (14.7)	20.2 (16.4)
Unley Rd (S) – Left turn	0.498 (0.223)	5.6 (5.6)	0.0 (0.0)
Unley Rd (S) – Through	0.498 (0.223)	0.0 (0.0)	0.0 (0.0)
Opey Ave (W) – Left turn	0.127 (0.090)	16.2 (9.1)	3.4 (2.6)
Opey Ave (W) – Right turn	0.628 (0.747)	553.1 (1280.5)	11.8 (13.2)

The SIDRA analyses indicate that the intersection of Unley Road and Opey Avenue operates satisfactorily. Whilst delays associated with right-turn movements appear to be high, SIDRA does not take into consideration operational behaviours of drivers (i.e. drivers not queuing across an intersection, as required by the Australian Road Rules) which would otherwise result in reduced delays. As such, the subject intersection is considered to operate adequately under 'existing' traffic volumes during both the am and pm peak hours.

Additional analyses of the Unley Road and Opey Avenue intersection have been undertaken, taking into consideration traffic volumes associated with the proposed development. Table 4 illustrates the forecast operating conditions of the intersection during the am and pm peak hours.

Table 4 –Future operating conditions of the Unley Road/Opey Avenue intersection during the am and (pm) peak hours

Turning movement	Degree of Saturation	Delay (s)	95th %ile Queue (m)
Unley Rd (N) – Through	0.398 (0.555)	0.0 (1.0)	0.0 (22.8)
Unley Rd (N) – Right turn	0.475 (0.555)	43.5 (15.0)	10.9 (22.8)
Unley Rd (S) – Left turn	0.500 (0.226)	5.6 (5.6)	0.0 (0.0)
Unley Rd (S) – Through	0.500 (0.226)	0.0 (0.0)	0.0 (0.0)
Opey Ave (W) – Left turn	0.193 (0.123)	16.5 (9.1)	5.2 (3.7)
Opey Ave (W) – Right turn	0.942 (0.844)	726.4 (1495.4)	20.6 (15.1)

Analyses of Unley Road and Opey Avenue intersection indicate that the intersection will remain operating at a satisfactory level upon completion and full occupation of the proposed development. Specifically, the analyses have identified a minimal increase in queues and delays associated with the left-turn movement from Opey Avenue.

With regard to right-turn movements from Opey Avenue, the SIDRA analyses have identified high delays associated with such movements. Such delays are considered to be associated with limitations in the modelling software and its inability to simulate driver behaviour. Furthermore, such increases in delay are quantified as being small due to the minimal increase in queues identified for the such movements.

Taking this into consideration, the SIDRA analyses indicate that the proposed development will not adversely impact upon the operation of the Unley Road and Opey Avenue intersection, and that it will continue to operate at a satisfactory level.

6. SUMMARY

The proposed development comprises the construction of six townhouses on the western portion of the site and a multi-storey building on the eastern portion of the site (fronting Unley Road). The development will comprise a mix of commercial floor area and residential apartments and will be serviced by basement, at-grade and garage parking areas.

Vehicle access to the site is proposed via a two-way crossover on Opey Avenue, at which all turning movements will be facilitated. All existing crossovers on Unley Road and Opey Avenue will be closed and reinstated as kerb, resulting in an additional three parking spaces being provided on-street.

Based upon the standard parking requirements identified in Council's Development Plan, the proposal has a theoretical requirement for 129 parking spaces to be provided on-site. Such a requirement results in a theoretical parking shortfall primarily associated with the residential apartment component of the development. However, Council's Development Plan also contemplates a reduction in parking requirements where sites are located within a Designated Area, contain a mix of land-uses (i.e. are mixed-use) and are located within close proximity to frequent public transport (as is the subject site).

Given that no specific reduced rates are identified, residential parking rates applicable to the District Centre Zone have been considered to be an appropriate benchmark for reduction in parking rates. It should be noted that these rates are also similar to the residential mixed-use rates identified in the Aurecon Guide. Taking Council's reduced rates (District Centre Zone) into consideration, it is considered that adequate parking will be provided on site to accommodate the anticipated parking demands of the residential and commercial components of the proposal.

Whilst a two-space shortfall (associated with visitor parking) was identified, the peak parking demand would occur outside of the peak on-street demand adjacent the site. As such, it is considered that adequate on-street parking would be available to accommodate the negligible parking shortfall.

With regard to traffic impact, the proposed development is forecast to generate 65 am and 73 pm peak hour trips. Analyses of the intersection of Unley Road and Opey Avenue indicate that the proposal will not adversely impact upon the intersection's operation.

APPENDIX A

CITIFY PLANS DATED 13 MARCH 2018

SHEET LIST		
SHEET #	SHEET NAME	REVISION
PL.03A	Ground Floor	A
PL.04A	Basement	A
PL.05A	Lower Basement	A
PL.06A	First Floor	A
PL.07A	Second Floor	A
PL.08A	Third Floor	A
PL.09A	Fourth Floor	Author
PL.10A	Fifth Floor	Author
PL.11A	Sixth Floor	A
PL.12A	Roof Plan	A
PL.13A	Design Sections	A
PL.14A	Design Sections	A
PL.17A	Elevations	A
PL.18A	Elevations	A
PL.19A	Townhouse Design	Author

248 UNLEY ROAD, HYDE PARK

REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Cover Page

PL.00

REVISION NO.
A

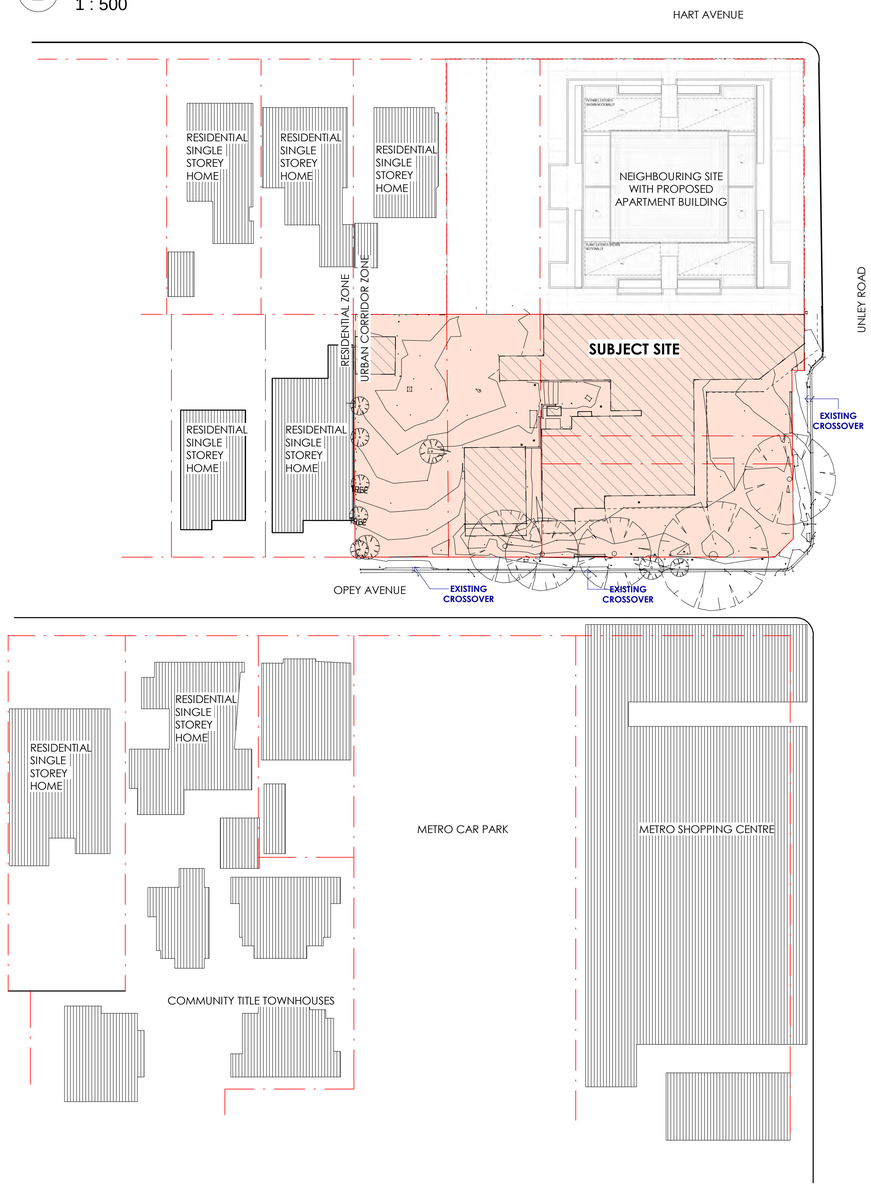
ISSUE
CONCEPT PLANS

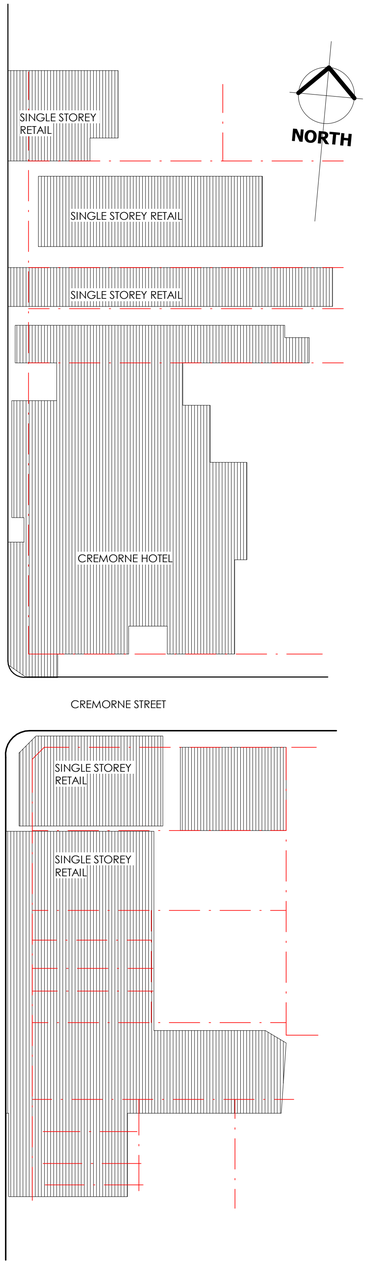
13/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

1 EXISTING SITE

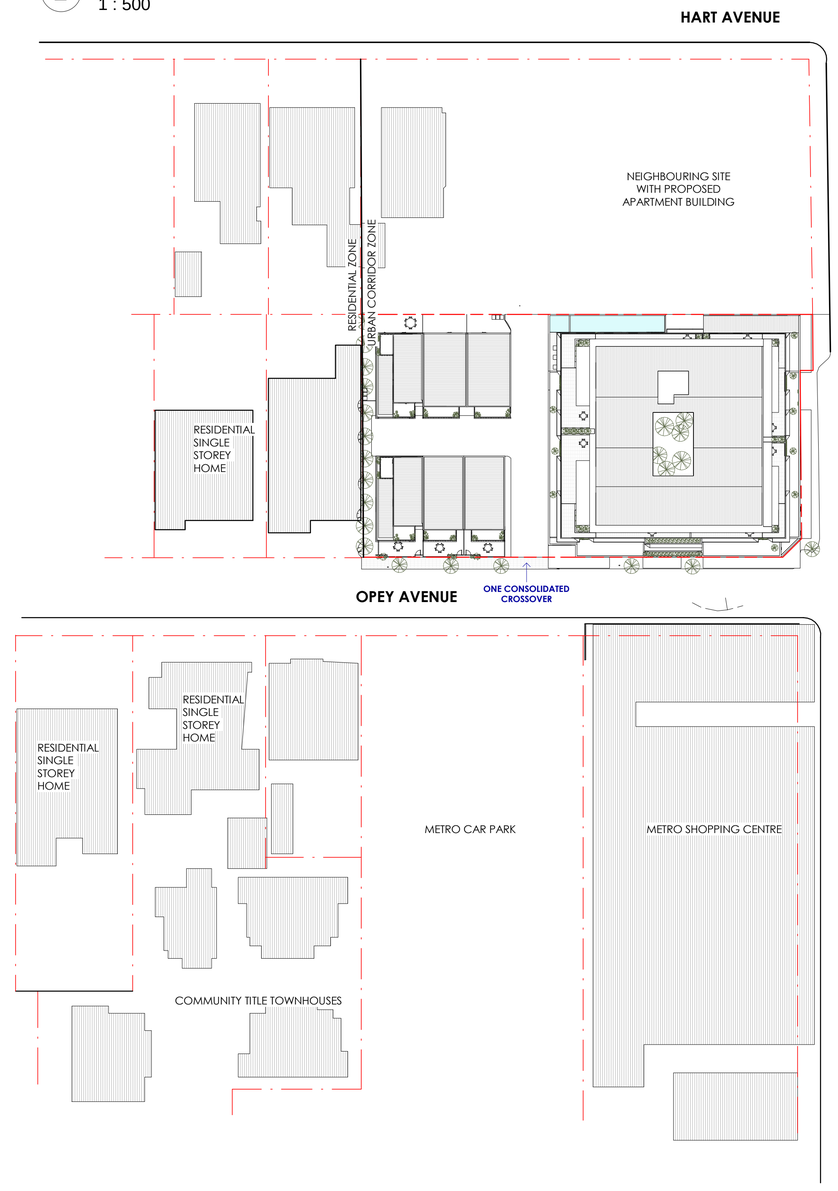
1 : 500

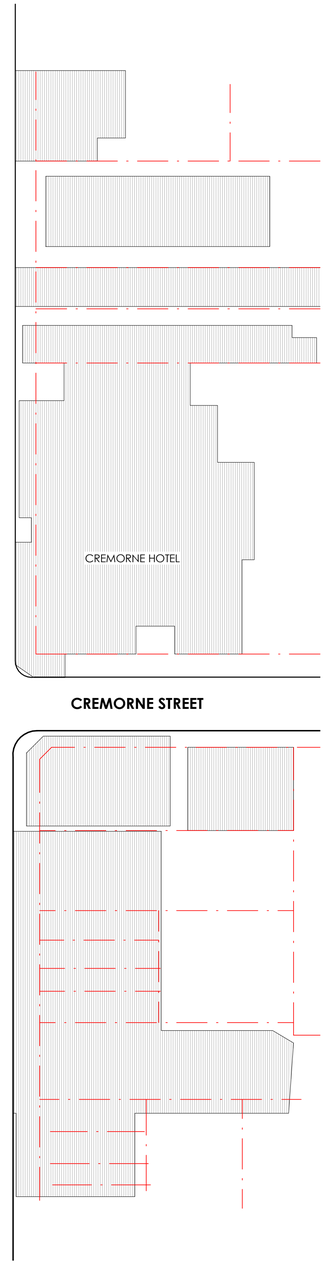




2 PROPOSED SITE

1 : 500





REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Site Context

PL.01A

REVISION NO.
A

ISSUE
CONCEPT PLANS

13/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

1 DEMOLITION & INFRASTRUCTURE PLAN
1 : 100

DP 1221

DP 736

ALL EXISTING BUILDINGS ON SUBJECT SITE TO BE DEMOLISHED

ALL EXISTING BUILDINGS ON SUBJECT SITE TO BE DEMOLISHED

ALL EXISTING BUILDINGS ON SUBJECT SITE TO BE DEMOLISHED

ALL EXISTING BUILDINGS ON SUBJECT SITE TO BE DEMOLISHED

85
832m²

86
188m²

87
621m²

84
604m²

16
604m²

EXISTING TREES SHOWN DASHED TO BE REMOVED

EXISTING TREES SHOWN DASHED TO BE REMOVED

EXISTING TREES SHOWN DASHED TO BE REMOVED

EXISTING TREES SHOWN DASHED TO BE REMOVED

EXISTING TREES SHOWN DASHED TO BE REMOVED

EXISTING TREES SHOWN DASHED TO BE REMOVED

REMOVE EXISTING CROSSOVER, REINSTATE KERB & FOOTPATH TO COUNCIL'S REQUIREMENTS AND APPROVAL

REMOVE EXISTING CROSSOVER, REINSTATE KERB & FOOTPATH TO COUNCIL'S REQUIREMENTS AND APPROVAL AND GAIN TWO NEW ON STREET VISITOR CAR PARKS

MASONRY NAIL IN KERB
RL = 47·327m

PSM 6628/43495
RL = 47·599m

PERMANANT SURVEY MARK

OPEY AVENUE

UNLEY ROAD

NORTH

WEBER FRANKIW AND ASSOCIATES PTY.LTD.
Licensed Surveyors and Land Division Consultants
A.C.N. 008 173 957

DETAIL AND CONTOUR SURVEY

ALLOTMENTS 84,85,86 & 87 IN FP 10798 &
ALLOTMENT 16 IN DP 736
HUNDRED OF ADELAIDE
HYDE PARK

REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

SHEET
Demolition &
Infrastructure Site Plan
PL.02A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
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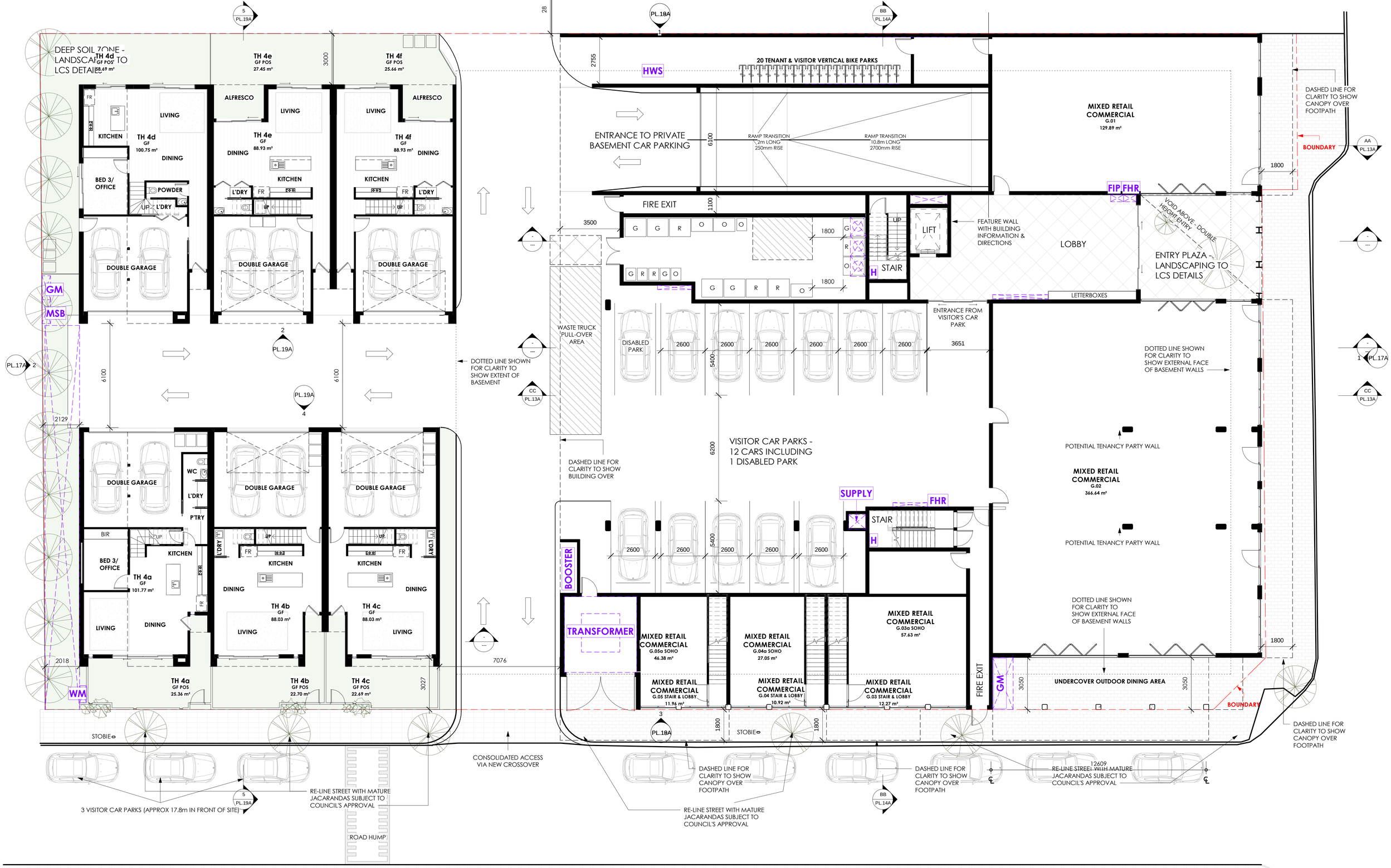
NOT FOR CONSTRUCTION



1 GROUND FLOOR PLAN

1 : 100

METRO SHOPPING CENTRE ON BOUNDARY 35M

REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Ground Floor

PL.03A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

1 BASEMENT PLAN

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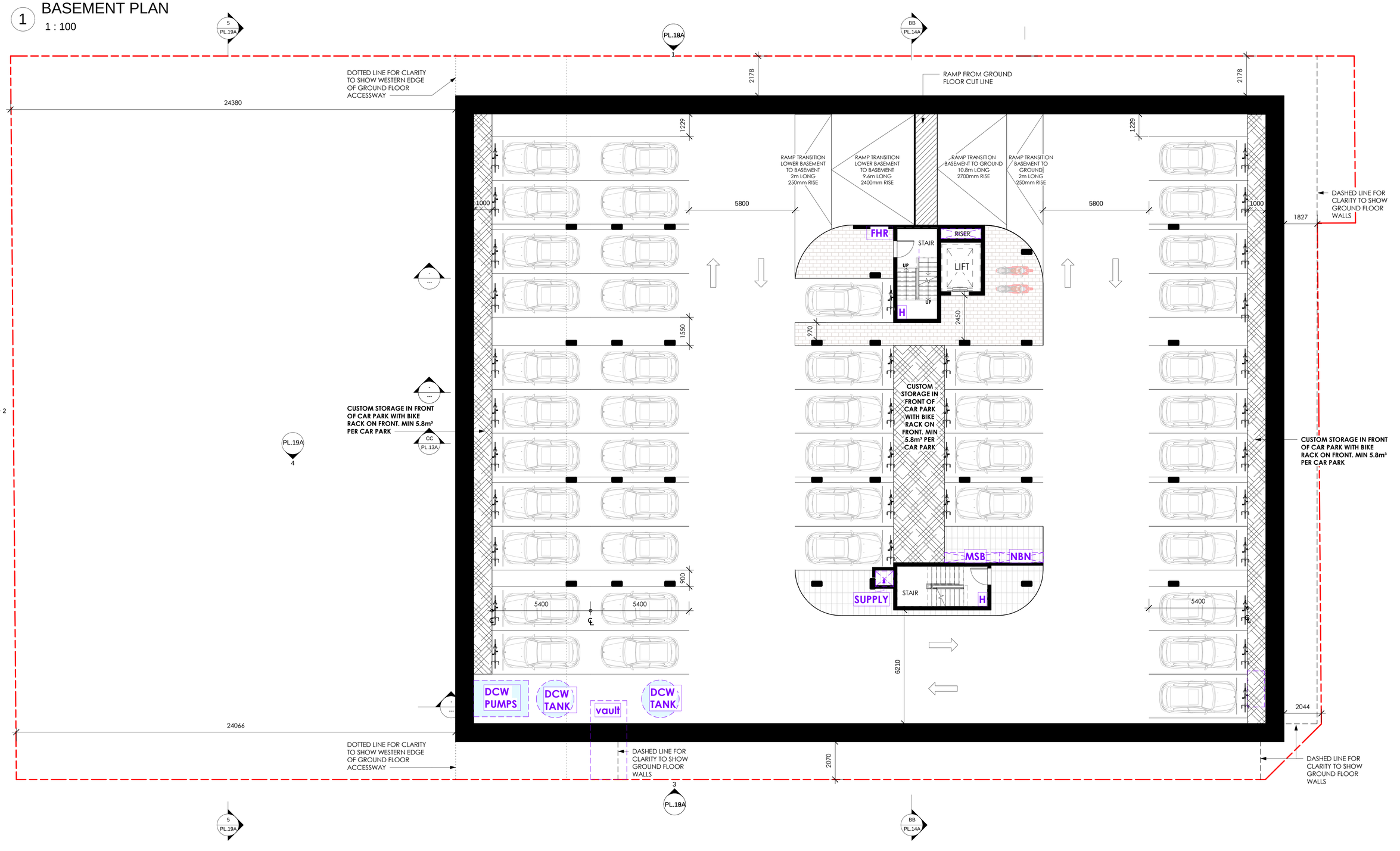

REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Basement

PL.04A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
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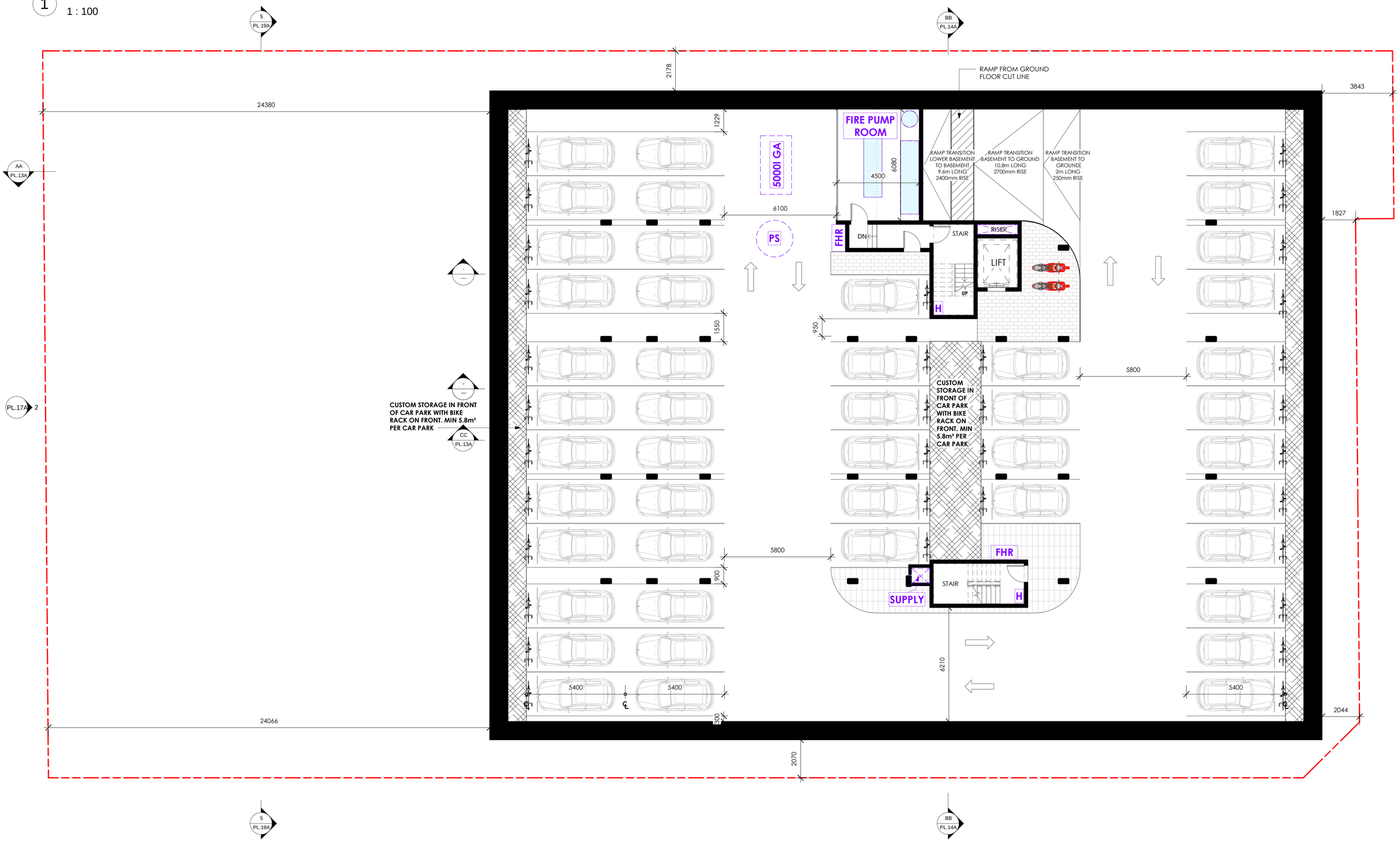
NOT FOR CONSTRUCTION

1 LOWER BASEMENT PLAN

1 : 100



REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Lower Basement

PL.05A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
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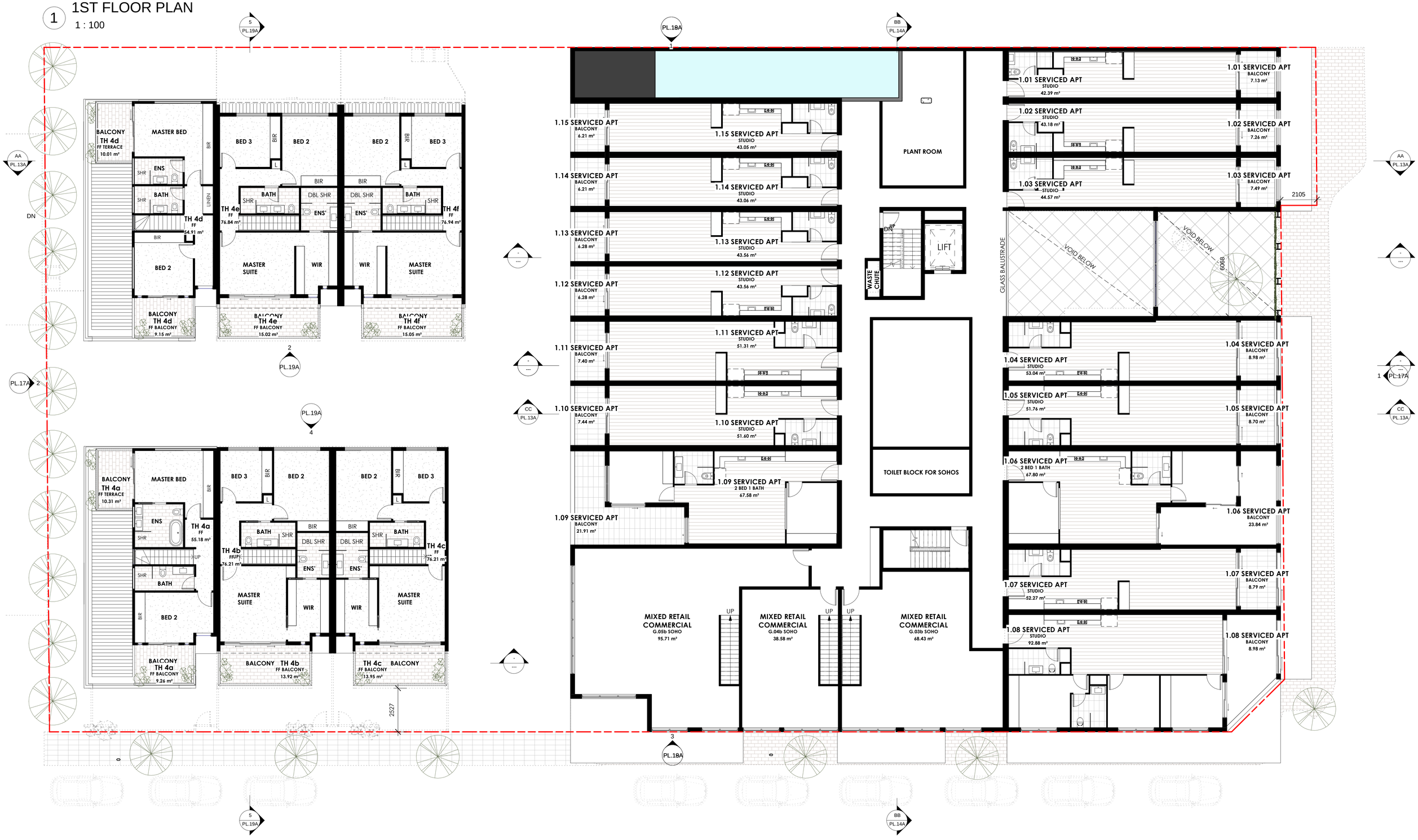
NOT FOR CONSTRUCTION

1 1ST FLOOR PLAN

1 : 100



REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
First Floor

PL.06A

REVISION NO.
A

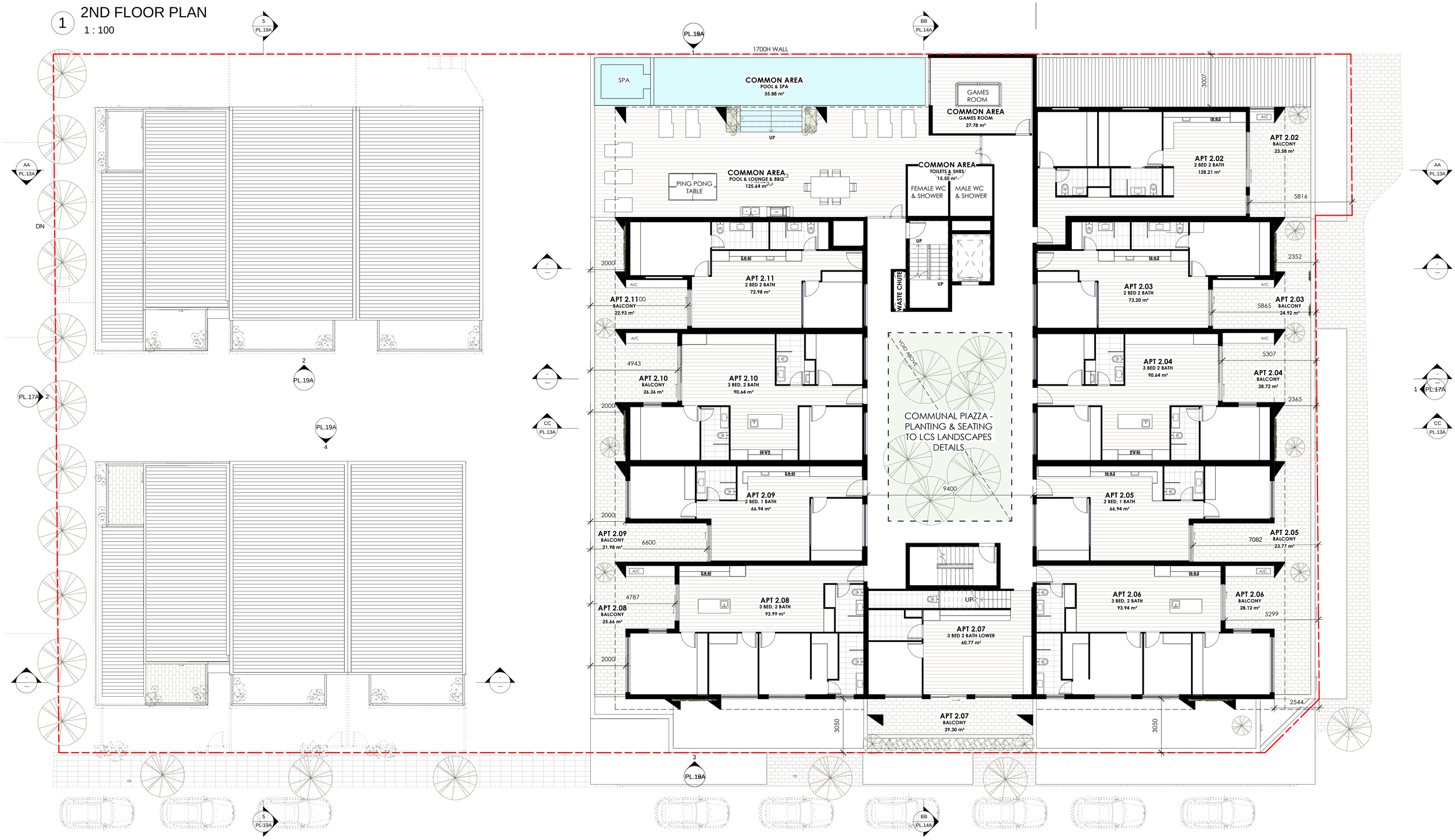
ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

1 2ND FLOOR PLAN

1 : 100



REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Second Floor

PL.07A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

1 3RD FLOOR PLAN

1 : 100

REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Third Floor

PL.08A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

1 4TH FLOOR PLAN

1 : 100

REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Fourth Floor

PL.09A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

1 5TH FLOOR PLAN

1 : 100

REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Fifth Floor

PL.10A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
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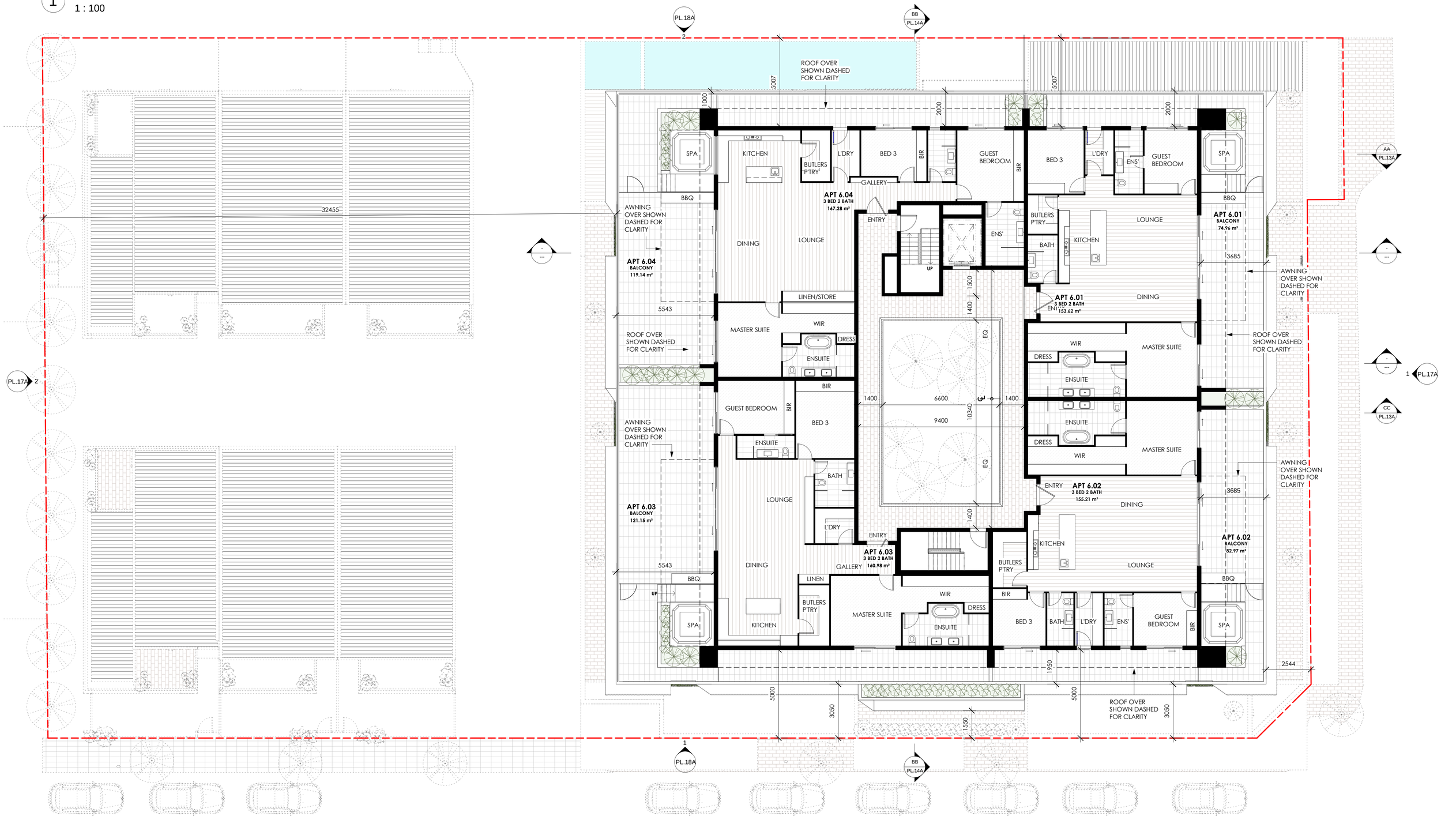
NOT FOR CONSTRUCTION

1 6TH FLOOR PLAN

1 : 100



REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Sixth Floor

PL.11A

REVISION NO.
A

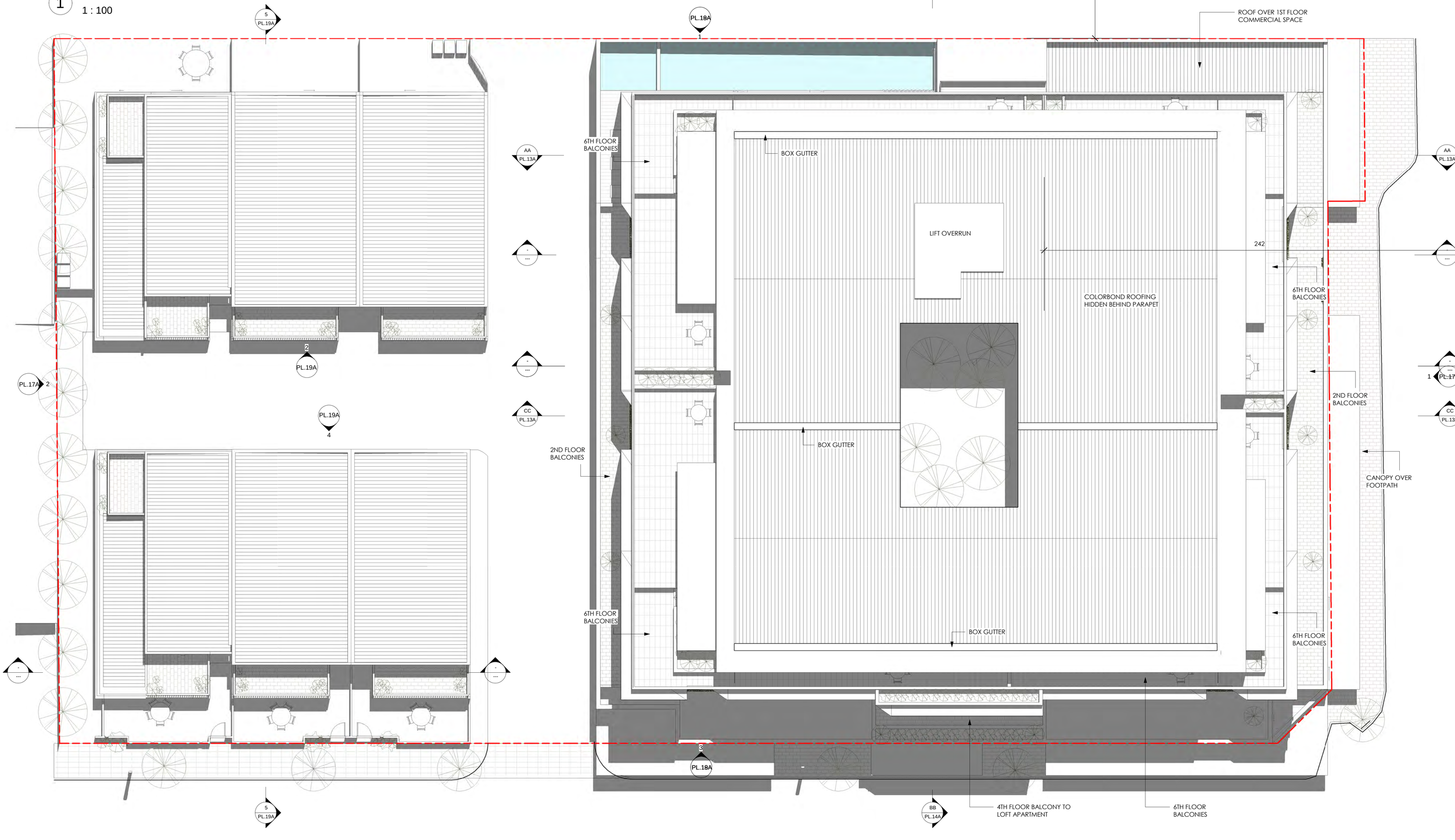
ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

1 ROOF PLAN

1 : 100



REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Roof Plan

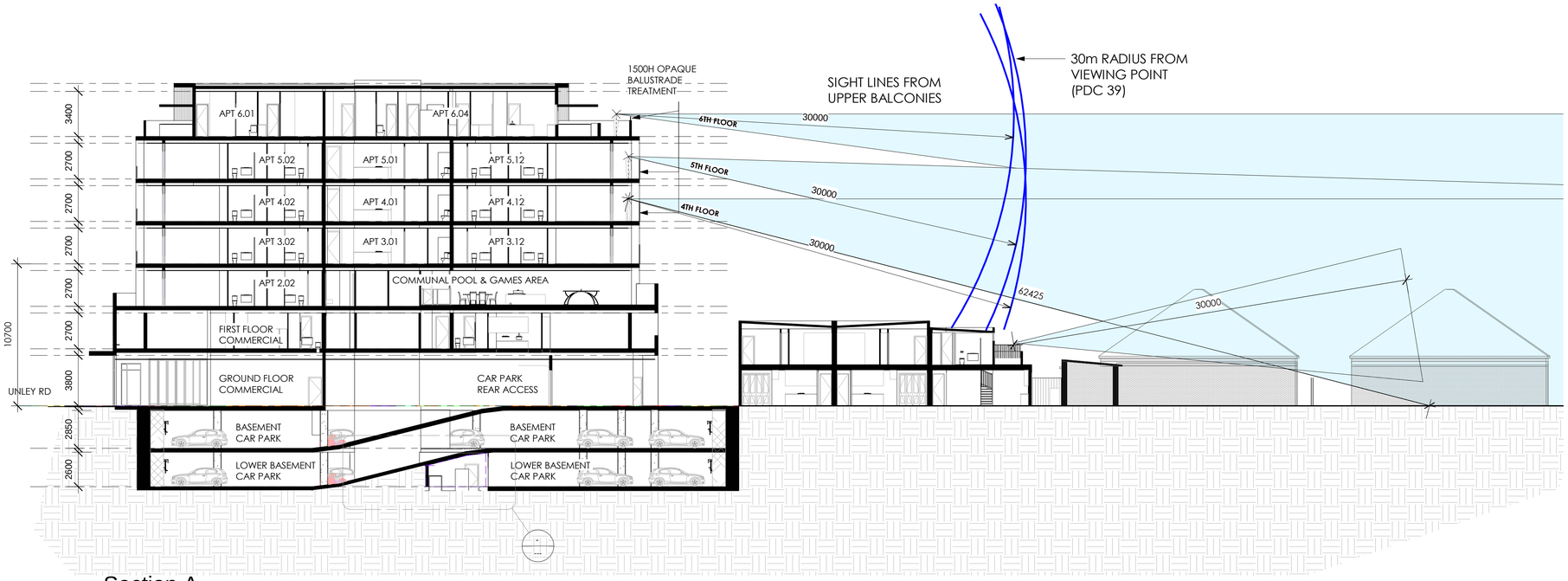
PL.12A

REVISION NO.
A

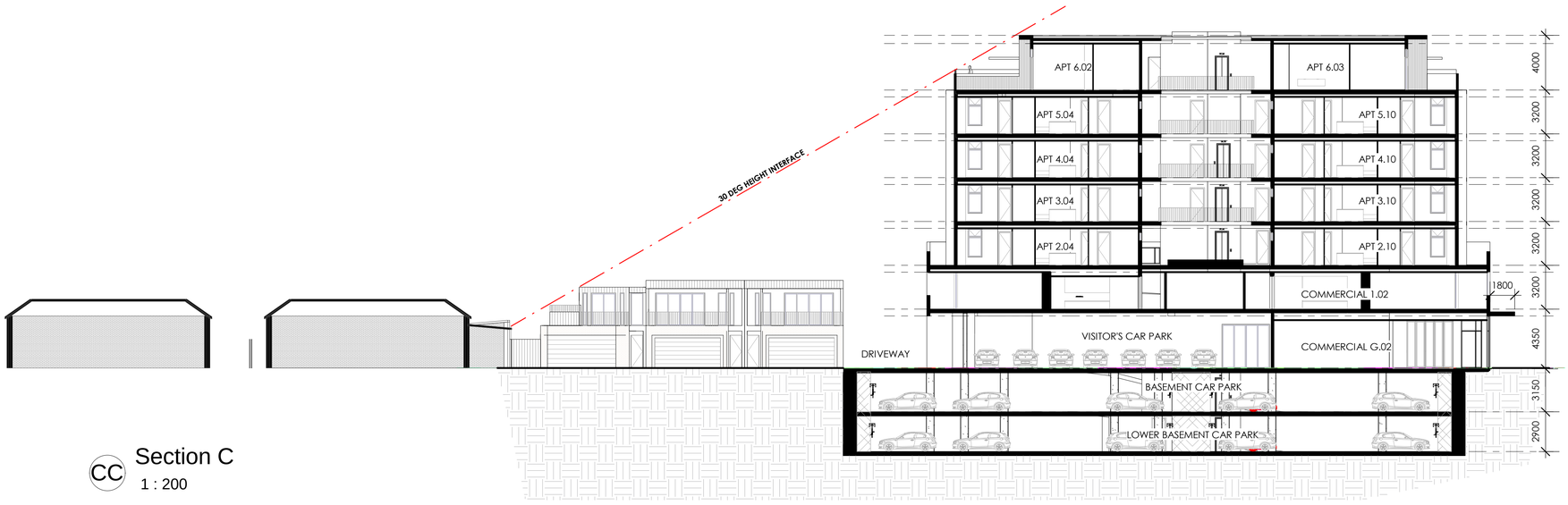
ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR
CONSTRUCTION



AA Section A
1 : 200



CC Section C
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REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Design Sections

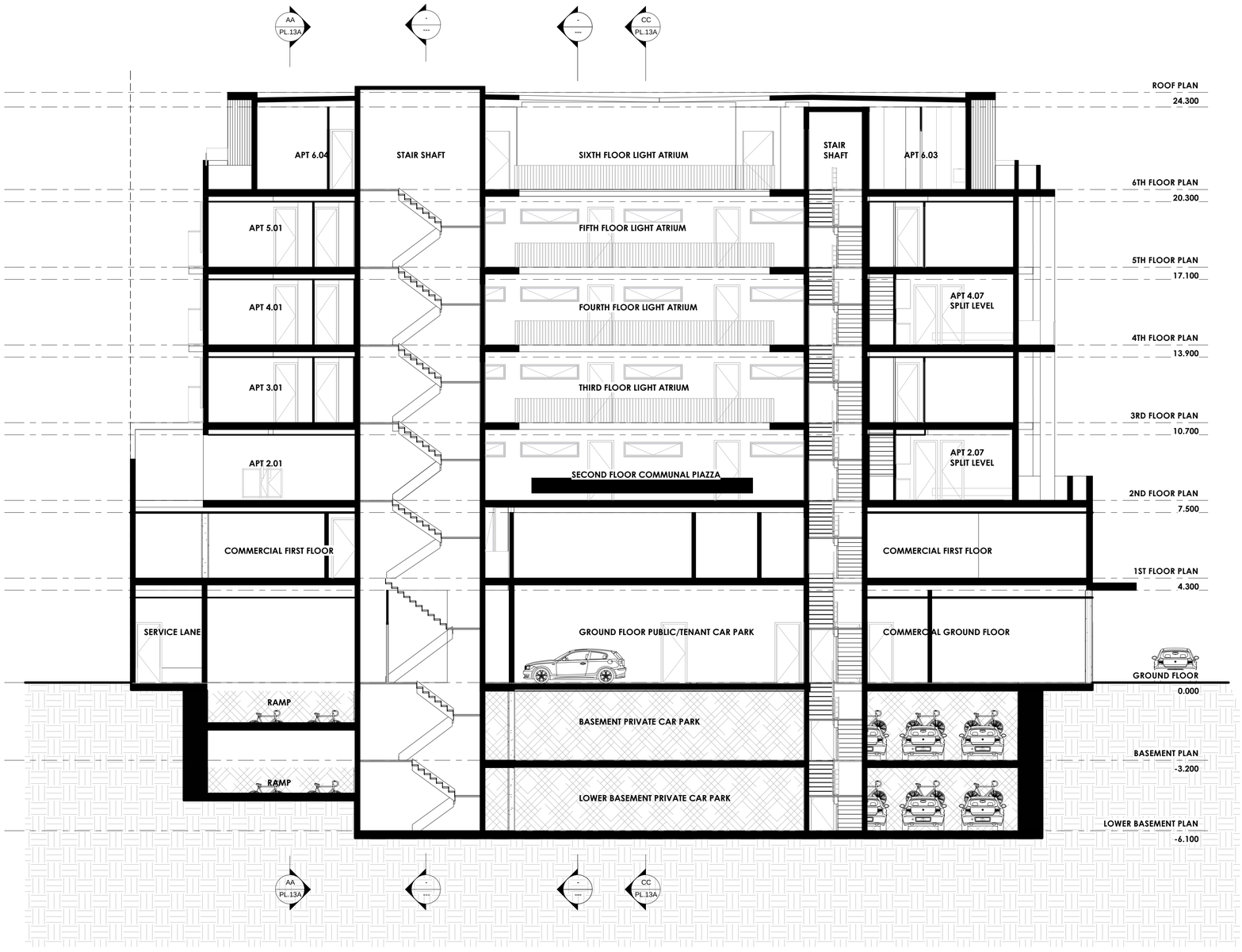
PL.13A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION



BB Section B
1 : 100

REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Design Sections

PL.14A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

1 EAST
1 : 100

2 WEST
1 : 100

REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Elevations

PL.17A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

1 SOUTH
1 : 100

2 NORTH
1 : 100

REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Elevations

PL.18A

REVISION NO.
A

ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

6 PERSPECTIVE - TOWNHOUSES

1 NORTH - TOWNHOUSES

1 : 100

4F OPEY AVENUE | 4E OPEY AVENUE | 4D OPEY AVENUE

2 TOWNHOUSES - INTERNAL SOUTH

1 : 100

4D OPEY AVENUE | 4E OPEY AVENUE | 4F OPEY AVENUE

3 SOUTH - TOWNHOUSES

1 : 100

4A OPEY AVENUE | 4B OPEY AVENUE | 4C OPEY AVENUE

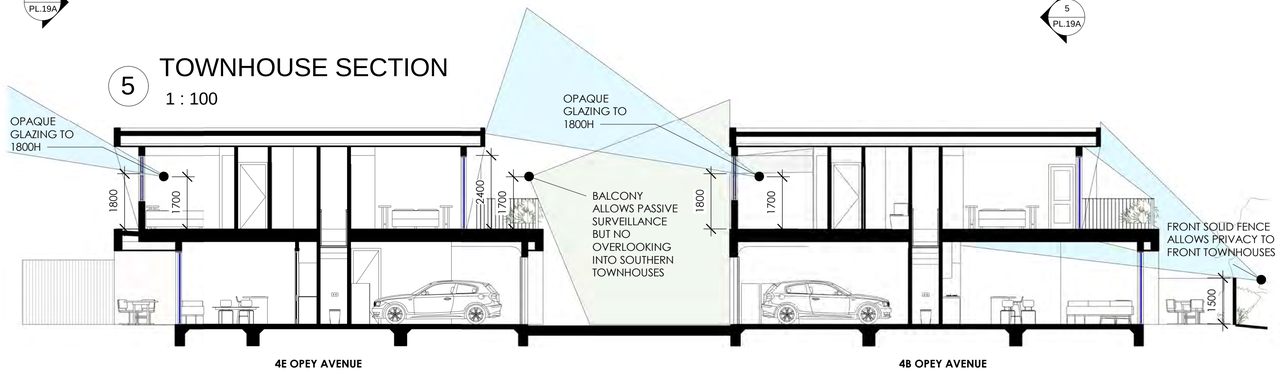
4 TOWNHOUSES - INTERNAL NORTH

1 : 100

4C OPEY AVENUE | 4B OPEY AVENUE | 4A OPEY AVENUE

5 TOWNHOUSE SECTION

1 : 100



4E OPEY AVENUE | 4B OPEY AVENUE

REVISIONS

HYDE PARK PLACE
LUXURY RESIDENTIAL

PROJECT ADDRESS
248 UNLEY ROAD HYDE PARK

CLIENT
CITIFY & BFC PTY LTD

CITIFY bfc

SHEET
Townhouse Design

PL.19A

REVISION NO.
A

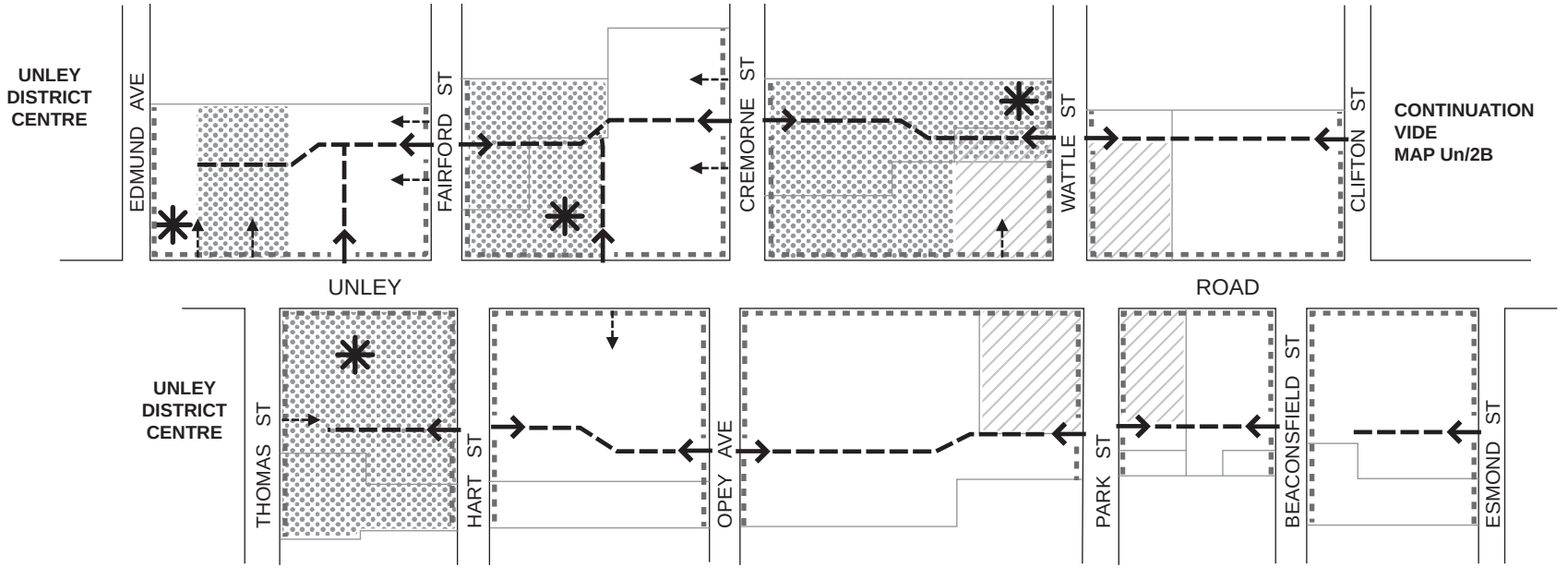
ISSUE
CONCEPT PLANS

14/03/2018
A1 1:100; A3 1:200

NOT FOR CONSTRUCTION

APPENDIX B

COUNCIL'S CONCEPT PLAN MAP UN/2A



Landmark development site (desirably consolidated)

Sites desirably consolidated

Desired vehicle link

Desired/consolidated vehicle access/egress

Existing vehicle access to be closed

No vehicle access

Heritage Place

1:2,000

Unley Road South

UNLEY (CITY)
HIGH STREET (Unley Road) POLICY AREA
Concept Plan Map Un/2A

Consolidated - 19 December 2017

APPENDIX C
SIDRA OUTPUT

MOVEMENT SUMMARY

Site: 101 [Unley/Opey - AM Exist]

New Site
Stop (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	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: Unley Rd (S)											
1	L2	17	2.5	0.498	5.6	LOS A	0.0	0.0	0.00	0.01	56.9
2	T1	1895	2.5	0.498	0.0	LOS A	0.0	0.0	0.00	0.01	59.7
Approach		1912	2.5	0.498	0.1	NA	0.0	0.0	0.00	0.01	59.7
North: Unley Rd (N)											
8	T1	763	2.5	0.354	3.4	LOS A	2.8	20.2	0.10	0.04	51.6
9	R2	44	2.5	0.354	39.1	LOS E	2.8	20.2	0.92	0.35	29.3
Approach		807	2.5	0.354	5.4	NA	2.8	20.2	0.15	0.06	47.8
West: Opey Ave (W)											
10	L2	46	2.5	0.127	16.2	LOS C	0.5	3.4	0.72	1.00	35.4
12	R2	6	2.5	0.628	553.1	LOS F	1.6	11.8	1.00	1.04	3.7
Approach		53	2.5	0.628	80.7	LOS F	1.6	11.8	0.75	1.01	19.1
All Vehicles		2772	2.5	0.628	3.1	NA	2.8	20.2	0.06	0.04	51.9

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.

MOVEMENT SUMMARY

Site: 101 [Unley/Opey - PM Exist]

New Site
Stop (Two-Way)

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	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: Unley Rd (S)											
1	L2	33	2.5	0.223	5.6	LOS A	0.0	0.0	0.00	0.05	56.6
2	T1	821	2.5	0.223	0.0	LOS A	0.0	0.0	0.00	0.02	59.4
Approach		854	2.5	0.223	0.2	NA	0.0	0.0	0.00	0.02	59.2
North: Unley Rd (N)											
8	T1	1895	2.5	0.537	0.7	LOS A	2.3	16.4	0.10	0.02	57.3
9	R2	56	2.5	0.537	14.7	LOS B	2.3	16.4	0.21	0.04	43.8
Approach		1951	2.5	0.537	1.1	NA	2.3	16.4	0.10	0.02	56.3
West: Opey Ave (W)											
10	L2	72	2.5	0.090	9.1	LOS A	0.4	2.6	0.45	0.89	38.6
12	R2	3	2.5	0.747	1280.5	LOS F	1.8	13.2	1.00	1.03	1.7
Approach		75	2.5	0.747	62.8	LOS F	1.8	13.2	0.47	0.89	22.0
All Vehicles		2879	2.5	0.747	2.5	NA	2.3	16.4	0.08	0.04	53.0

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.

MOVEMENT SUMMARY

Site: 101 [Unley/Opey - AM Exist + Dev]

New Site
Stop (Two-Way)

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	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: Unley Rd (S)											
1	L2	24	2.5	0.500	5.6	LOS A	0.0	0.0	0.00	0.02	56.9
2	T1	1895	2.5	0.500	0.0	LOS A	0.0	0.0	0.00	0.01	59.7
Approach		1919	2.5	0.500	0.1	NA	0.0	0.0	0.00	0.01	59.6
North: Unley Rd (N)											
8	T1	763	2.5	0.398	0.0	LOS A	0.0	0.0	0.00	0.00	59.9
9	R2	64	2.5	0.475	43.5	LOS E	1.5	10.9	0.95	1.03	26.6
Approach		827	2.5	0.475	3.4	NA	1.5	10.9	0.07	0.08	50.7
West: Opey Ave (W)											
10	L2	71	2.5	0.193	16.5	LOS C	0.7	5.2	0.73	1.00	35.3
12	R2	9	2.5	0.942	726.4	LOS F	2.9	20.6	1.00	1.12	2.9
Approach		80	2.5	0.942	100.6	LOS F	2.9	20.6	0.77	1.02	16.8
All Vehicles		2826	2.5	0.942	3.9	NA	2.9	20.6	0.04	0.06	50.2

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.

MOVEMENT SUMMARY

Site: 101 [Unley/Opey - PM Exist + Dev]

New Site
Stop (Two-Way)

Movement Performance - Vehicles												
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Unley Rd (S)											
1	L2	45	2.5	0.226	5.6	LOS A	0.0	0.0	0.00	0.06	56.4
2	T1	821	2.5	0.226	0.0	LOS A	0.0	0.0	0.00	0.03	59.2
Approach		866	2.5	0.226	0.3	NA	0.0	0.0	0.00	0.03	59.0
North: Unley Rd (N)											
8	T1	1895	2.5	0.555	1.0	LOS A	3.2	22.8	0.13	0.03	56.4
9	R2	77	2.5	0.555	15.0	LOS C	3.2	22.8	0.29	0.06	43.2
Approach		1972	2.5	0.555	1.5	NA	3.2	22.8	0.13	0.03	55.1
West: Opey Ave (W)											
10	L2	99	2.5	0.123	9.1	LOS A	0.5	3.7	0.46	0.89	38.6
12	R2	3	2.5	0.844	1495.4	LOS F	2.1	15.1	1.00	1.04	1.5
Approach		102	2.5	0.844	55.1	LOS F	2.1	15.1	0.47	0.90	23.5
All Vehicles		2940	2.5	0.844	3.0	NA	3.2	22.8	0.11	0.06	51.6

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.

Ref: 17214|TAW

20 July 2018

Mr Joel Wilkinson
Citify Group
PO Box 576
WELLAND SA 5007

Dear Joel,

PROPOSED MIXED-USE DEVELOPMENT
248 UNLEY ROAD, HYDE PARK
DEVELOPMENT APPLICATION NO. 090/M005/18

I refer to the proposed mixed-use development at 248 Unley Road, Hyde Park. Specifically, this letter provides updated parking and traffic impact assessments in relation to the proposal. The assessments have been based upon amended plans prepared as a result of responses received from the City of Unley, the Department of Planning, Transport and Infrastructure (DPTI) and third-party representations regarding Development Application No. 090/M005/18.

Furthermore, this letter also responds to comments made by DPTI and Council, as well as representations received as part of the public notification period. As requested, I have undertaken a review of the responses received, with key comments raised relating to traffic, parking and associated design aspects identified in italics, followed by my response.

AMENDED PROPOSAL

Following receipt of the referral responses from both the City of Unley and DPTI, the proposed development has been amended. The amended plans now illustrate the following key components:

- 2x two-bedroom townhouses (each with a dual-car garage);
- 4x three-bedroom townhouses (all with a dual-car garage);
- 810 m^2 of commercial floor area (comprising of 496 m^2 of commercial floor area and 314 m^2 of SOHO floor area);

- 12x studio apartments;
- 5x one-bedroom apartments;
- 17x two-bedroom apartments;
- 25x three-bedroom apartments;
- 90x basement parking spaces (two of which are designated as parking spaces for people with disabilities);
- 13x at-grade parking spaces (one of which is designated as a parking space for people with disabilities);
- 20x at-grade bicycle parking spaces;
- 67x basement bicycle parking spaces (built into storage units); and
- 4x motorcycle/scooter basement parking spaces.

In addition to the above amendments to dwelling, commercial, SOHO and parking space yields, the site's access driveway has been widened from 6.1 m to 6.8 m (both inclusive of clearances). Such a width will exceed the requirements of the Australian Standard for "*Parking Facilities – Part 1: Off-street car parking*" (AS/NZS 2890.1:2004).

PARKING ASSESSMENT

Based upon the above yields, an updated parking assessment has been undertaken. The assessment has been based upon reduced parking rates (adopted from the District Centre Zone requirements) which are considered appropriate for the reasons outlined in CIRQA's report dated 17 April 2018.

Based on the reduced rates (also identified in CIRQA's report), Table 1 illustrates a breakdown of the theoretical parking requirement of each component within the proposal, as well as the number of spaces allocated to each use.

Table 1 – Breakdown of the theoretical parking requirement associated with each use based upon District Centre Zone parking rates.

Use	Theoretical req. (based on District Centre)	No. of allocated parking spaces	Comment
Townhouses	10	12	2 additional spaces
Apartments	55	65	10 additional spaces
Visitor parking	15	16*	1 additional space
Commercial	25	25	No shortfall

**inclusive of three on-street parking spaces reinstated adjacent the directly adjacent the subject site.*

Table 1 indicates that the reduced parking requirements of the townhouse and commercial components of the proposal will be satisfied entirely on the subject site (i.e.

no parking shortfall will be associated with either the townhouse or commercial components).

With regard to the apartment parking requirement, the parking assessment indicates that a surplus of ten spaces will be associated with the apartments (i.e. no parking shortfall will be associated residential component of the proposal).

Finally, with regard to the residential visitor component, a shortfall of two spaces may occur on-site. However, given that three parking spaces will be reinstated on-street directly adjacent the subject site (as a result of the closure of redundant crossovers), a surplus of one space will be associated with the visitor component of the proposal. As such, it is considered that the proposal will have negligible impact on on-street parking availability and will improve on-street parking provisions.

TRAFFIC IMPACT ASSESSMENT

Based upon the updated development yields, it is forecast that the proposal will generate in the order of 63 am and 71 pm peak hour trips. Such a generation is similar to (and slightly less than) that identified CIRQA's previous report.

RESPONSE TO DPTI COMMENTS

As part of the approval process, the subject development application has been referred to DPTI for comment (given that the site fronts Unley Road – a DPTI controlled road). The following traffic and parking related comments were raised by DPTI.

> *"Whilst DPTI considers that the additional traffic volumes are unlikely to significantly impact on the operation of Unley Road, queues on Opey Avenue, particularly those associated with the right turn out* [movement from Opey Avenue onto Unley Road], *are expected to increase."* (my emphasis)

The previous assessment undertaken by CIRQA identified that three additional vehicles may undertake a right turn movement from Opey Avenue onto Unley Road during the am peak hour and one additional vehicle during the pm peak hour. These forecasts were derived from surveyed (actual) turning movements at the subject intersection. Such volumes are very low and, as identified in the SIDRA modelling, would result in a minimal increase (approximately one vehicle) in the 95th percentile queue lengths associated with the right turn movement.

Based upon the above, the forecast increase in queue length associated with the right turn movement from Opey Avenue onto Unley Road is minimal and would have negligible impact on the intersection's operation.

Notwithstanding the above, a high-level assessment of the site's existing traffic generation indicates that the difference in total traffic generation would be minimal. Accordingly, the overall traffic impact associated with the proposed development would be lower than that identified in the CIRQA's theoretical assessment (SIDRA analyses).

> *"... the presence of on-street parking along Opey Avenue has the potential to impact on two-way movements between the Unley Road/Opey Avenue junction and the site access, as well as the potential for service vehicles to safely access the site. Consequently, in order to ensure that simultaneous two-way vehicle movements are achievable along the subject section of Opey Avenue, on-street parking on both sides of the road should be banned between the Unley Road/Opey Avenue junction and the access to the site."*

CIRQA's report (dated 17 April 2018) identified that Opey Avenue has a carriageway width of approximately 7.8 m. Such a width is considered appropriate for a local street facilitating two-way movement and on-street parking provisions.

DPTI's suggested banning of parking on both sides of Opey Avenue is excessively onerous and not required to retain two-way traffic movements on Opey Avenue. In any event, two-way movements (including commercial vehicle movements) are currently accommodated in Opey Avenue with on-street parking on both sides of the road.

As noted above, the traffic generation associated with the proposal (including a number of commercial vehicle movements) is similar to that of the existing situation. Accordingly, given that Opey Avenue currently operates satisfactorily, it is considered that retention of the status-quo (with regard to on-street parking and carriageway width) is appropriate.

> *"In-principle no objection is raised to the proposed development subject to the following conditions of approval..."* (my emphasis)

As noted above, DPTI does not oppose the proposed development in its current form. Of particular note, while DPTI have identified a small number of queries in relation to traffic management considerations, it is emphasised that none of the recommended conditions relate to the queries detailed above. As such, DPTI's recommended conditions (relating to traffic and parking) are considered appropriate for inclusion in the Development Approval notice.

RESPONSE TO COUNCIL COMMENTS

The subject development has also been referred to the City of Unley as part of the development approval process. The following comments have been made by Council regarding the proposal.

> *"The two-way access is indicated to be 6.1 metres … which is minimal and likely to lead to drivers not hugging their sides and therefore blocking opposite movement and interrupting on-street movement."*

The proposed two-way driveway satisfies the Australian Standard (AS/NZS 2890.1:2004) with regard to two-way driveway widths. As such, the proposed width is considered appropriate to facilitate simultaneous two-way movements.

Nonetheless, the updated proposal illustrates that the two-way driveway has been widened to 6.8 m. Such a width will exceed the minimum width requirements of the Standard and, more than, appropriately facilitate simultaneous two-way movements.

> *"Opey Avenue is currently a narrow street and the safe vehicle movement pathways, including for larger waste and service vehicles (max 8.8 metres long) based on more favourable right turn in from Unley Road rather than tighter left turns. Right turns may be complicated by future tram arrangements which may further compound design tolerances in Opey Avenue."*

Whilst it is not completely clear which aspect of the design Council is referring to in the above paragraph, the following comments have been made.

Similar to my response to DPTI's comment above, Opey Avenue currently accommodates two-way traffic movements. Given that the difference in traffic generation between the existing site and the proposed development is minimal, it is not anticipated that traffic volumes on Opey Avenue will significantly change. As such, retention of the status-quo (with regard to carriageway widths and on-street parking) is considered appropriate.

With regard to commercial vehicle movements, such vehicles will be able to enter and exit the subject site in a forward direction and will be restricted such that they occur outside of peak periods. Furthermore, it is noted that commercial vehicles currently use Opey Avenue to access adjoining sites (such as the Unley Metro Shopping Centre) and for Council refuse collection. As such, using Opey Avenue to access the subject site is considered appropriate and would negligibly impact on the operation of Opey Avenue.

Finally, it is noted that the Integrated Transport and Land Use Plan (ITLUP) identifies trams on Unley Road as a medium (5 to 15 years) to long (15 years plus) term priority. Furthermore, it is noted that this project was envisaged by the previous Labor Government and has not been supported by the current Liberal Government. As such, it is considered that trams are unlikely to eventuate along Unley Road in the near future (if at all).

In the unforeseen event that the right-turn movement from Unley Road into Opey Avenue was restricted, commercial vehicles would be required to use the surrounding arterial and

collector road network to access the site via a left-turn from Unley Road. Such movements would readily be accommodated on the adjacent road network.

> *"It is indicated the access way through the site will line-up and could afford movement through the adjoining site to the north, and vice-a-versa* (sic)*, to improve vehicle movements. This is very beneficial."*

As noted by Council, the site's internal access road will align with the internal access road of the recently approved development at 244-246 Unley Road. Whilst the proposed development does not rely on this connection, if eventuated, the link would afford additional access and movement options for vehicles accessing both the subject and adjacent sites.

Furthermore, the link would also increase access opportunities for commercial vehicles and would (likely) remove the need for commercial vehicles to reverse within either site. Such an arrangement would increase the safety associated with operation of such vehicles.

> *"Traffic generation modelling for peak periods indicates the proposed commercial and mainly residential combination will increase daily traffic along Opey Avenue and the surrounding local road network. However, it will be to a limited degree…"*

As noted above in response to DPTI's query, the initial traffic impact assessment did not take into consideration traffic volumes associated with the existing uses on the subject site. Based upon a high-level assessment of the site's existing traffic generation, the difference in traffic generated between the existing site and proposed development would be minimal. Accordingly, the overall traffic impact associated with the proposed development would be lower than that identified in CIRQA's theoretical assessment (SIDRA analyses).

> *"One disable* (sic) *space is provided at ground level but based on 1 space per 25 spaces there should be a total of 4…"*

The amended plans now illustrate an additional three parking spaces for use by people with disabilities within the basement parking areas. This now brings the total on-site provision to four spaces, in line with Council's requirements.

> *"There is inadequate provision for visitor parking. With mixed-use the visitor spaces can reasonably be shared between commercial (primarily day-time) and residential (primarily night-time)."*

The revised parking assessment (undertaken above in this letter) indicates that the proposed development generates a theoretical demand for 15 visitor parking spaces. Given that 13 visitor parking spaces will be provided at-grade on the subject site and a

further three spaces will be reinstated on-street directly adjacent the subject site (resulting in a total of 16 spaces), the theoretical visitor parking demand is considered to be satisfied.

It should be emphasised that CIRQA's parking assessment has not taken into consideration the potential for car park sharing between various components of the development (i.e. the sharing of spaces between commercial and residential as suggested by Council). If this was to be considered, it would be excepted that the site would have a surplus of in the order of 13 to 24 parking spaces. As such, it is considered that ample parking has been provided as part of the proposed development in order to accommodate the forecast peak parking demand.

RESPONSE TO REPRESENTATIONS

Finally, as part of the public notification period, five representations have been received. Specifically, the representations received have been categorised as follows:

- one supports the development;
- two support the development with some concerns; and
- two oppose the development.

Only two representors have raised concerns relating to traffic and parking. Of these representations, one opposed the proposal whilst the other supported the proposal but has some concerns. Key points relating to traffic and parking matters are as follows:

> *"... The visitor car parking provided (11 spaces) is inadequate for a mixed-use and residential development of this scale. Particularly, as there is no on-site visitor car parking for the townhouse development." (Representation - 5 Hart Avenue)*

As identified above, additional at-grade visitor parking has been provided as part of an amended proposal (now resulting in 13 at-grade spaces). Adequate commercial parking will be provided within the basement parking areas. Furthermore, an additional three on-street parking spaces will be reinstated as a result of the closure of crossovers, further increasing parking opportunities. As such, it is considered that appropriate parking provisions will be provided as part of the proposed development.

> *"not enough infrastructure to accommodate traffic..." (Representation – 7 Opey Avenue)*

The forecast traffic generation associated with the proposal is low (particularly when considered against the traffic generation associated with the existing site uses). Furthermore, there is more than adequate capacity on Opey Avenue and the surrounding road network to accommodate the small increase in traffic volumes associated with the proposed development.

Please don't hesitate to contact me on 0417 184 235 should you require any further information.

Yours sincerely,

THOMAS WILSON
Senior Traffic & Transport Engineer | CIRQA Pty Ltd

PT DESIGN Pty Ltd 141-149 Ifould Street Adelaide SA 5000 T [08 8412 4300] F [08 8232 4311] W [ptdesign.com.au] ABN [35 008 116 916]
structural • civil • engineers

17/04/2018

Citify Group
PO Box 576
WELLAND SA 5007

Attention: Joel Wilkinson

P17.12.34-3-LET-RW-RW

Dear Joel,

UNLEY ROAD (248), HYDE PARK

As requested PT Design have undertaken a preliminary assessment of the above mentioned development with regards to stormwater design. A complete assessment and full design would be undertaken in the detailed design phase. Our design methodology will be as follows:

1. The finished floor level to the building will be set a minimum of 300mm above the top of kerb levels. If the site is located with a known flood prone area, the finished floor level to the ground floor level of the building will be set at a minimum of 150mm above the noted flood level.

2. The proposed storm water discharge from the site will be sized so as not to exceed the existing discharge flows from the existing site. Site detention will be used as required. The method od detention to be confirmed during the detailed design phase in consultation with the Architect and client.

3. Should a major storm event occur the stormwater system will designed such that all stormwater flows will be directed overland and out to the street without impacting this development or any neighouring boundaries.

4. The Basement undercroft carpark will be drained to sumps with twin submersible pumps and then pumped to street stormwater system taking into account the design consideration noted in 2. above.

5. The stormwater and general drainage design will be undertaken in accordance with the National Plumbing and Drainage Code, AS3500 and best engineering practice.

Please do not hesitate to contact the undersigned if you have any queries on the items noted above.

Yours faithfully,
PT DESIGN

RONAN WHELAN
DIRECTOR

PT DESIGN Pty Ltd 141-149 Ifould Street Adelaide SA 5000 T [08 8412 4300] F [08 8232 4311] W [ptdesign.com.au] ABN [35 008 116 916]
structural • civil • engineers

02/07/2018

Citify Pty Ltd
PO Box 576
WELLAND SA 5007

Attention: Joel Wilkinson

P17.12.34-4-LET-MP-MP

Dear Joel

248 UNLEY ROAD, HYDE PARK

I write to advise of our preferred plan of attack to address the council stormwater requirements stated in your email dated Monday 25th of June (enclosed for reference). This letter gives a generic overview of how we plan to address the issues, the final outcome will be addressed during detail design in the future.

Townhouse Development

Each townhouse will be provided with a 1.0kL slimline rainwater tank located in the courtyard area. These tanks will be plumbed back into the toilets of their respective townhouses.

The overflow from these tanks and all surface catchments will drain to an underground detention tank beneath the driveway. This will be pumped out to the street water table at a discharge rate of 4 L/sec.

Due to the nature of the proposed development some gross pollutants are likely to be encountered. These pollutants will be controlled by way of at source filter devices (trash racks or similar) in each catch pit in the common areas. All carparking is under the roof so treatment of oil and greases will not be required.

Commercial/Apartment Building

All stormwater leaving the site from this section of works will be from either roof or balcony catchments. These will produce clean water only. As such treatment of the stormwater has will not be required.

The roof and balcony catchments will drain to an above ground detention tank or a series of tanks that will drain to the street water table at a max. discharge rate(s) of 4 L/sec (each). The final location, size and arrangement of the stormwater detention will be determined in the future, however, there will be a maximum of 4 tanks and 4 discharge points spread evenly over the development.

Conclusion

Calculations show that the allowable stormwater discharge rate from the site is 62 L/sec (refer to enclosed calculation). With a total of 5 discharge points from the site with a max discharge rate of 4 L/sec each we will have a total discharge rate of just 20 L/sec. This satisfies this requirement.

structural • civil • engineers
PT DESIGN Pty Ltd 141-149 Ifould Street Adelaide SA 5000 T [08 8412 4300] F [08 8232 4311] W [ptdesign.com.au] ABN [35 008 116 916]

Most of the site will be producing clean stormwater from roof/balcony catchments only. Common driveway areas not under the roof don't have any carparking. As such no treatment of oils and greases is required. At source solid pollutant filters will therefore provide suitable treatment of the stormwater to satisfy the council requirement.

Re-use of stormwater has been provided by the way of rainwater tanks plumbed back into the townhouses once again meeting the council requirement also.

As previously stated, the final stormwater stormwater solution will be determined in the future during the detail design stage. This will be done in consultation with not only the builder and Architect but also in consultation with the City of Unley's Stormwater Engineer.

I trust the above satisfies your requirements. If you have any further queries, please don't hesitate to contact me on the numbers shown.

Yours faithfully
PT DESIGN

MATTHEW PRIMER
CIVIL DESIGNER

Matthew Primer

From: Ronan Whelan
Sent: Wednesday, 27 June 2018 2:49 PM
To: Joel Wilkinson
Cc: Anthony Farina; Matthew Primer
Subject: RE: 248 Unley Road Hyde Park - Stormwater design.

Hi Joel,

Matt Primer is our head civil designer. I've briefed him on the project and given him your email below. He will review the council's comments and respond early next week.

Regards,

Ronan Whelan
Director

PT Design

141-149 Ifould Street
Adelaide SA 5000, Australia
Phone : +61 (08) 8412 4300
E-mail : ronan.w@ptdesign.net.au

From: Joel Wilkinson <joel@citifygroup.com.au>
Sent: Monday, 25 June 2018 8:40 PM
To: Ronan Whelan <ronan.w@ptdesign.net.au>
Cc: Anthony Farina <anthony@bfconstructions.com.au>
Subject: Re: 248 Unley Road Hyde Park - Stormwater design.

Hi Ronan

Thanks for that. Well let me know what you wish to do after your civil engineer has a look, If he wants to go ahead and design the whole thing or if he only wants to do a written reply in letter form saying he will address the below etc. Depending on your work loads etc, We will probably be looking to submit back to SCAP at the end of next week so perhaps a letter would cover it again at this stage.

The following paragraphs are comments by Unley Council - who have a informal response as the assessing body is SCAP. In any case we would rather address them now.

First Point
- Onsite storm water management is not nominated, other than it will address policy requirements to provided for lower out flow than existing. Provisions will need to be subject to a condition requiring adequate detention, retention and quality management to address on-site WSUD and required peak storm water outflows (less than pre-existing or equivalent 80% impervious, whichever is the lesser) in accord with City of Unley Development and Storm water Management Design Guide.

2nd Point

- The existing development has a very high impervious area whilst the proposed development is probably similar. The maximum runoff flow rate for commercial development is less than pre-existing and desirably the equivalent of 80% impervious (20% pervious) which ever is the lesser. The outflow to Unley Road and Opey Avenue to address 1:10 year ARI events should be kept below 4 to 5l/s These should be distributed equi-distant, and as generously separated as possible, along both the Unley Road and Opey Avenue street frontages. The closest storm water main is across Unley road making a direct connection impractical.
Water quality issues are limited. Stormwater is mostly roof run-off, with gross pollutants able to be settled out through tanks. The driveway and paved surfaces could lead to more pollutants but these are to be treated via grated sump traps.

Summary points for SMP.

A detailed stormwater management plan with accompanying calculations shall be submitted which demonstrates the retention/detention volumes to ensure the flow rates discharging from the development are less than or equal to the lesser of pre-existing development or 80% impervious site coverage, and include:

- stormwater from non-permeable surfaces (eg roofs, courtyards and carparks) collection on-site, treatment, detention and optimised onsite reuse for grey water, eg toilets and landscaping irrigation;
- rainwater detention and retention tanks be sensitively incorporated into plans without compromising other required functions or overall design with scale, location and screening of screen
- Street outlets to the street be limited to 4 litres per second each and a maximum of 8 outlets that should be distributed equi-distant and as generously separated as possible along both the Unley Road and Opey Avenue street frontages;
- connections to the main infrastructure be upgraded to provide sufficient capacity to accept the additional flows generated during a 1 in 10 year storm event;

The preceding shall be carried out in consultation with Unley Council and to the satisfaction of the Development Assessment Commission;

I will forward you a copy of the amended planning drawings on Wednesday this week when they are finalised.
If there are any specific further requirements, Unley council would be happy to provide.

Kind Regards

Joel

Joel Wilkinson Managing Director

CITIFY

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WELLAND SA 5007

On Mon, Jun 25, 2018 at 7:32 PM, Ronan Whelan <ronan.w@ptdesign.net.au> wrote:

> Joel,

Project	248 Unley Rd Hyde Park	Project #	P17.12.34
		Date	2/7/18
Design By	MP	Page	1

Allowable flow from site.

Site area = 2820.3 m^2

$\therefore$ A_1 = 2820.3 (0.8) = 2256.2 m^2

$\therefore$ A_P = 2820.3 (0.2) = 564.1 m^2

$$\therefore \quad Q = \frac{(2256.2 + (564.1 \times 0.2))\ 94.2}{3600}$$

= 62 L/sec

Note: Pre-development catchment areas would allow for a greater allowable discharge rate. This 80/20 calc is of the worst case scenario.

Sunday, 8 April 2018

Dr Chris Colby
Principal Consultant & Managing Director
p 08 8294 5571 | m 0410 088 839
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Joel Wilkinson
Managing director
Citify Group
PO Box 576, Welland SA 5007
Email: joel@citifygroup.com.au

Dear Joel,

Re: Waste Management Plan – 248 Unley Rd, Hyde Park

Please find in the letter below a Waste Management Plan (WMP) in relation to the proposed development.

1 Description of proposed development

The proposed development (the "Development") is a corner allotment at 248 Unley Rd, Hyde Park (on corner with Opie Ave), Hyde Park, in the City of Unley (Council).

Per plans provided (ISSUE: CONCEPT PLANS REV. A, 248 Unley Road Hyde Park, Date: 28/03/2018), the Development will comprise a residential, mixed use (commercial), multi-storey (7-level + basement + lower basement) building + two separate groups of townhouses.

- Figure 1 overleaf provides an illustrated front view of the Development from Unley Rd.
- Copies of Ground Floor and Level 2 plans are included in Attachment 1 (to illustrate the floor plate of the development and relevant waste management facilities).
- Table 1 below summarises the proposed or expected land use and Development Metrics.
    - An assumed profile of café, retail and showroom-type tenancies have been assumed for the Mixed Retail Commercial areas.
    - It includes the recommended Waste Resource Generation Rate (WRGR) classification based on the South Australian Better Practice Guide (SABPG) (Zero Waste SA, 2014), which along with Development Metrics are used for estimation of waste and recycling volumes to assess waste storage required for the site.

Table 1 – Summary of land uses for the Development, their WRGR Description(s) and relevant Development Metric(s)

Land Use	Description	Location	WRGR Description*	Development Metric(s)	
Residential	Torrens Titled Townhouses	THS G.4a - G.4c	High Density Residential Dwelling (inc. student accommodation)	3	Apartments
				9	Bedrooms
	Community Titled Townhouses	THS G.4d - G.4f		3	Apartments
				9	Bedrooms
	Apartment Building	APT 1.06-6.04		64	Apartments
				134	Bedrooms
	Public Area Provision	Apartment Building: Ground, Level 1 & Level 2	Showrooms	251	m^2 GFA
Commercial	Mixed Retail Commercial^ & Lobby Coffee Bar	Lobby Coffee Bar & G.02c (part thereof)	Café/Restaurants	207	m^2 GFA
		G.02a (part thereof)	Showrooms	137	m^2 GFA
		G.01, G.02b (part thereof),3a/b-05a/b	Retail > 100m2	522	m^2 GFA

* Per land use classification for Waste Resource Generation Rates (WRGRs) in the South Australian Better Practice Guide (SABPG) (Zero Waste SA, 2014)

^ Assumed profile for purpose of Waste Management Plan development. These areas will not be finalised until building becomes operational and tenants are confirmed.

Figure 1 – Front view (Eastern perspective) of Development from Unley Rd. *Reproduced from Concept Plans, Rev No. A, 13/3/2018*

2 Services

Table 2 overleaf gives the expected or recommended waste services by land use and recommended WRGR Description per Table 1. These different types of services are summarised below.

- ***Routine Services –*** These require on-site waste storage and routine and regular collections.
    - All residential dwellings would have a 3-bin Council equivalent service (i.e. General waste, Recycling, Food waste).
    - Commercial tenancies would have services appropriate to their scale and type of business activity in line with "best practice" industry expectations and scale of tenancy.
        - For some tenancies, there can be options they can elect depending on their needs (e.g. a Café may elect to have extra recycled deposit container and/or cooking oil collections)
- ***On-call services –*** Residents and/or tenants would access hard waste collection on an as-needed basis.
- ***Maintenance services –*** Some waste items (e.g. lighting in common areas or commercial tenancies) would be removed and disposed of by the contractor providing the related maintenance service (and hence on-site waste storage is not usually needed or provided).
- ***External Services –*** Other waste items (e.g. printer cartridges, lighting) can be conveniently dropped off by tenants/residents at external locations (e.g. Officeworks, waste depot) (and thus, separate on-site waste storage outside dwellings or tenancies is not usually needed or provided).

Table 2 – Expected or recommended waste & recycling services for the Development

Service Type	Residential		Mixed Retail Commercial		
	All residential dwellings	*Public Area Provision*	*Cafés*	*Retail*	*Showrooms*
Routine (regularly scheduled)	• General Waste • Recycling • Food Organics	• General Waste	• General Waste • Recycling • Food Organics • Recycled deposit containers (OPTION) • Cooking Oil (OPTION)	• General Waste • Recycling • Confidential Paper (OPTION)	• General Waste • Recycling • Confidential Paper (OPTION)
On-call (as needed)	• Hard/E-waste				
Maintenance (waste removed by contractor)	• Garden Waste (where applicable) • Sanitary (public and commercial toilets) • Lighting (where applicable)				
External (by tenant off-site)	• Lighting • Printer Cartridges • Batteries				

3 Waste & recycling volumes

Table 3 below estimates the waste and recycling volumes for the Development (in Litres/week). These estimates are based on WRGRs in the SABPG (Zero Waste SA, 2014). *Note: WRGRs (in the SABPG) do not exist for sanitary, lighting, printer cartridge or battery waste. Volumes of these waste items are relatively small, and thus, have not been estimated. For the Café land uses, WRGRs were discounted (see Table footnote) to reflect that this tenancy will be a "light café" or "café-style dining" situation, not a full-service restaurant (which the WRGR values for this land use in the SABPG would ordinarily reflect).*

Table 3 – Estimated waste & recycling volumes (Litres/week) for proposed development – Routine Services. N/A – Not Applicable; NE – Not estimated

Waste/Recycling Service	Residential				Commercial+		
	Torrens Titled Townhouses	*Community Titled Townhouses*	*Apartment Residents*	*Public Area Provision*	*Cafés^*	*Retail*	*Showrooms*
	L/week	*L/week*	*L/week*	*L/week*	*L/week*	*L/week*	*L/week*
General Waste	270	270	4,020	921	1,830	1,841	698
Dry Comingled Recycling	225	225	3,350		1,627	1,753	164
Food/Garden Organics	90	90	1,340		2,033		
Hard waste	63	63	938	12	51	73	11
E-waste	11	11	168	2	3	6	2
Lighting waste	Not estimated						
Printer Cartridges/Batteries	Not estimated						
Garden Waste	Not Applicable: Maintenance Service						
TOTAL	659	659	9,816	935	4,958	1,178	571

^ WRGRs for Café/restaurant land use in SABPG were discounted as follows to reflect café-style dining situation: General Waste – 40% reduction; Recycling – 20% reduction; Organics – 50% reduction.

+ Commercial GFAs were changed to NFA for area values using in waste/recycling volume estimation: Cafes – NFA=70%GFA, Retail = 80%, Showrooms = 90%.

4 Stakeholder consultation

Discussions were held with the Proponent (Citify and BFC Pty Ltd) and the Traffic Consultant (CIRQA), to confirm most appropriate types of waste storage, sharing of waste storage, the location and space available for this storage, and how waste and recycling bins could be collected. The outcomes from these discussions are incorporated into the proposed waste system for the Development outlined further below.

In addition, a phone discussion was undertaken (on 14 February 2018) with Ms Kerry Matulick, Waste Management Officer, from City of Unley to establish availability and/or access to Council waste collection services for residents. The following was concluded.

- The Torrens-titled townhouse residents can access the Council kerbside collection service assuming appropriate provision is made for on-site storage of the Council 3-bin set and for presentation of these bins on Opie Ave for kerbside collection (per: www.unley.sa.gov.au/waste-recycling/recycling-waste).
- Residents may be able to access the Council hard waste collection service, which provides one hard waste collection per financial year (per: www.unley.sa.gov.au/waste-recycling/recycling-waste) so long as an appropriate location can be found to place and safely maintain the hard waste on kerbside until collected, which should be feasible for Torrens-titled townhouse residents but may depend on negotiation with Council of suitable arrangements for waste presentation for Community-title townhouse and Apartment residents.

5 Waste Management System

5.1 Waste Storage Area(a)

There would be four types of waste storage at the Development:

1. **Torrens-titled townhouses** – where each property would store their own Council kerbside collection 3-bin set.
2. **Central Waste Storage area** – which would be located at Ground Level and store waste and recycling bins for:
    a. Community-title residents (shared storage)
    b. Apartment residents & Public place waste (shared storage)
    c. Commercial retail & showroom tenants (shared storage)
3. **Lobby Coffee Bar Storage** – which would be located back-of-house at Ground Level
4. **G.02c Potential Café Tenancy** – which would be located back-of-house at Ground Level

The recommended type(s) and number(s) of bins to support the Routine Services for each of the above waste storage area(s) is summarised in Table 4 below. Figure 2 overleaf illustrates where the storage areas would be located at Ground level in the Development, including showing the types and numbers of bins recommended in Table 4 to demonstrate that there is adequate waste storage available.

Note: The Central Waste Storage area in Figure 2 includes:

- *Discharge area and bins for Apartment Building waste chutes;*
- *Multi-purposed temporary hard waste storage and bin wash area (that can be set up when required);*
- *Some additional spare area for commercial storage in event extra services are elected.*

Note: The organics 240L MGB that would be provided by Council to Torrens-titled townhouses for their kerbside service could be too large, and if their waste contractor can accommodate, there may be merit in Council providing a smaller bin (e.g. 80/120/140L MGB) given the low volumes of food waste that will be generated by each dwelling (although as these townhouses have their own small yards there may be some (small amounts of) garden waste too).

Table 4 – Waste storage and bin requirements for Routine Services, including collection frequency and collection service provider

Waste Storage Area(s)	Land Use	Routine Service	Estimated Waste/Recycling Volumes (L/week)	Provider	Collection Frequency (Events/week)	Max. Bins/Items Stored & Collected (per Event)		
						No.	*Size (L)*	*Type*
1. Torrens Titled Townhouses *(one bin set per property)*		General Waste	270	Council kerbside	Weekly	4	140	MGB
		Recycling	225		Fortnightly	4	240	MGB
		Food Organics	90		Fortnightly	4	240	MGB
2. Central Waste Storage Area	*a. Community title townhouses (shared)*	General Waste	270	Private contractor	2	1	240	MGB
		Recycling	225		1	1	240	MGB
		Food Organics	90		1	1	240	MGB
	b. Apartment residents & Public place waste (shared)	General Waste	4941		3	2	1,100	Skip bin
		Recycling	3350		2	2	1,100	Skip bin
		Food Organics	1340		3	1	660	Skip bin
	c. Commercial & retail tenants (shared)	General Waste	4,290		3	2	1,100	Skip bin
		Recycling	2,390		3	1	1,100	Skip bin
		Food Organics	1,970		3	2	660	Skip bin
3. Lobby Coffee Bar		General Waste	353		3	1	1,100	Skip bin
		Recycling	314		2	1	240	MGB
		Food Organics	392		2	1	240	MGB
4. G.02c potential Café Tenancy		General Waste	1477		2	1	240	MGB
		Recycling	1313		3	1	660	Skip bin
		Food Organics	1641		3	1	660	Skip bin

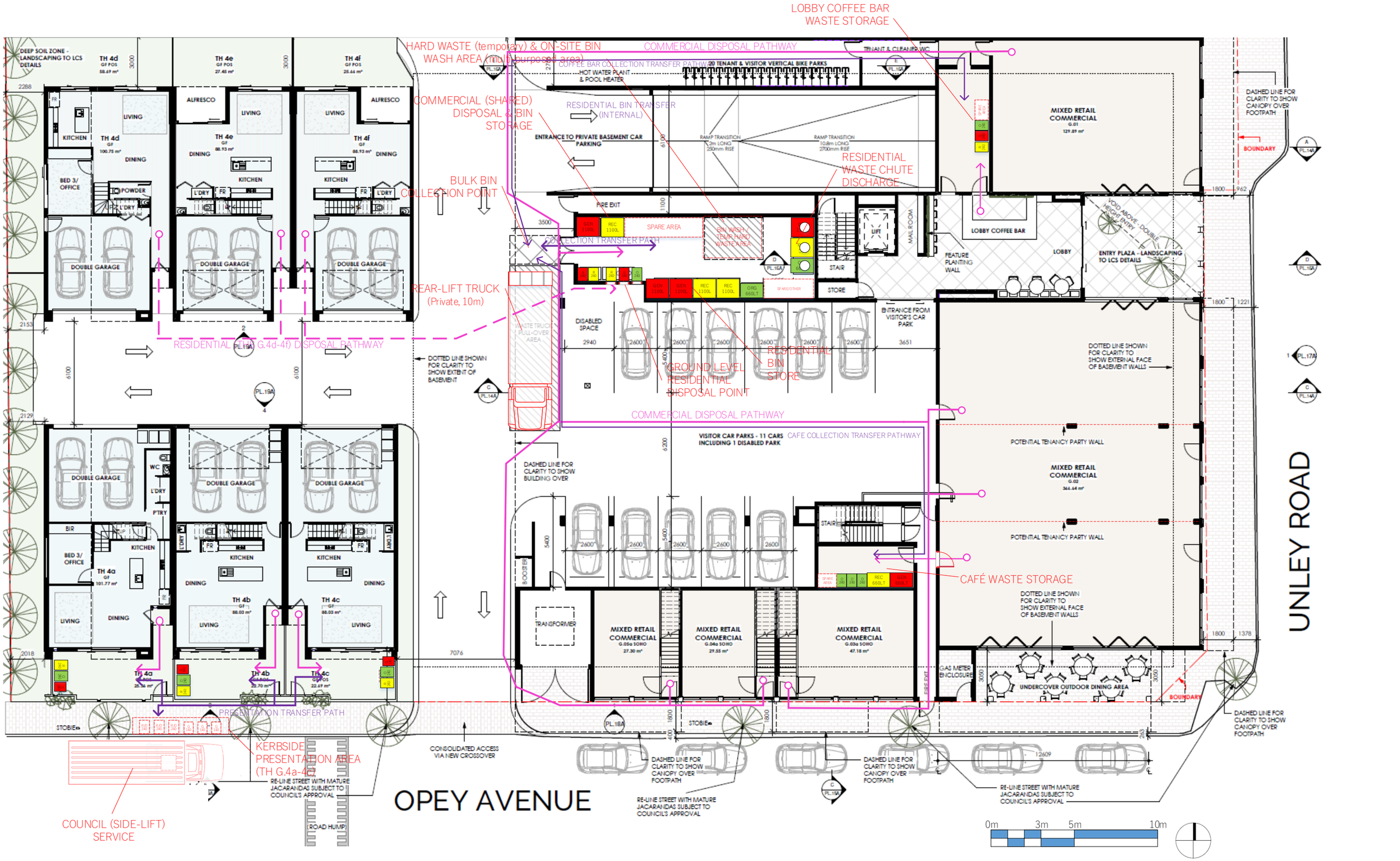

*Figure 2 – Ground level layout illustrating waste storage areas, transfer pathways (**pink – disposal, purple – collection**) and collection points*

5.2 System Operation – Routine Services

5.2.1 User Storage

Each land use would have user storage appropriate to the site activities, i.e.

- **All Residential dwellings** –
  - Would be provided with kitchen bins as follows, e.g. see Figure 3 below.
    a) *General waste bin – at least 20L in size, with bin liner*
    b) *Commingled recycling waste bin – at least 20-30L in size*
    c) *Food organics bin – 6-8L kitchen caddy (or in-draw bin), with compostable bin liner*
  - The bins should be equipped with handles allowing easy carriage by residents to their local disposal point.

(a)

(b)

Figure 3 – Examples of suitable waste and recycling kitchen bins: (a) General waste & recycling - 2×20L Buckets in pull-our draw; and (b): Bench-top food waste kitchen caddy (Adelaide City Council, 2016)

- **Commercial tenancies** –
  - ***Retail or showroom tenancies*** –
    - Bin stations with general waste and recycling bins (20-60L).
    - Separate (optional, if elected) confidential paper bin(s) (140/240L MGB) in stationery room.
    - Lighting and printer cartridge boxes and battery tube in stationery room (optional).
  - ***Café tenancy(ies)*** –
    - General waste, recycling and food waste bins located in kitchen or back-of-house, sized as needed (e.g. 40-80L), mobile or with carry handles for easy carriage to waste bins by staff
    - Loose cardboard storage area recommended (to be disposed of into Recycling skip)
    - Other waste/recycling bins / receptacles (e.g. recycled deposit containers, cooking oil) if elected.
- **Public place areas** –
  - 60-80L bagged general waste bins (where bagged waste can be transferred to Central Waste Storage area for disposal to 1,100L General Waste skips).

5.2.2 Local Disposal (inc. Transfer Pathways)

Local disposal points would be as follows. Indication of suitable disposal transfer pathways described below are illustrated in Figure 2.

- **Residential dwellings** –
    - ***Torrens-titled townhouses*** – Residents would dispose of waste & recycling to their Council-provided bin sets located on their properties (i.e. see nominal bin locations marked on Figure 2)
    - ***Community-titled townhouses*** – Residents would carry waste to a drop-off/disposal access points (one for each service) located on the wall outside the Central Waste Storage area, which would discharge to shared bins (240L MGBs) located inside (i.e. see Figure 2)
    - **Apartment residents** – Residents would dispose to chutes (one for each service) via access disposal points on each level.
        - The Level 2 plan in Attachment 1 gives an example of the location and space provision made on each level for the waste chutes and their access disposal points.
            - As this waste chute equipment is specialised and proprietary, design of these chutes and access points should be finalised during detailed design in conjunction with the waste chute equipment supplier and installer.
        - The three chutes would discharge to bins in the Central Waste Storage area as depicted in Figure 2.
            - The levels of waste or recycling in these bins would be automatically monitored by level sensors to notify Property Services when these bins were becoming full (so they could be swapped over with an empty).
- **Commercial tenancies** –
    - ***Retail or showroom tenancies*** – Staff or cleaners would collect waste / recyclable items from user storage and transfer it to Central Waste Storage area to empty into the shared commercial waste / recycling bins provided.
    - ***Café tenancy*** – Staff would transfer waste / recyclables to back-of-house waste/recycling storage areas and empty it into the bins provided.
- **Public place Waste** – Property Services would empty bins and transferred waste to Central Waste Storage area for disposal into 1,100L General Waste skips for residential waste.

All transfer paths to local disposal points above should be free of steps, grades < 1:12, with appropriate hard/even surfaces, and wide enough (i.e. ≥1m) to be safe for residents and tenants to navigate when carrying their waste or recycling.

5.2.3 Presentation for collection (inc. Transfer Pathways)

- **Torrens-titled townhouses –** Residents would transfer bins from their yards to the kerbside verge on Opie Ave for the Council (side-lifting) collection truck to empty on designated Council collection days (i.e. see indicative location and size for presentation area in Figure 2)
    - This kerbside presentation location and configuration will be determined (and may be marked) by Council when these residents request access to the kerbside collection service.
    - It will allow for minimum 30cm gaps between bins, 0.8m setback from any public infrastructure on road verge (e.g. Stobie poles, public place bins, post boxes, etc.), and 0.5m setback from the pedestrian path if feasible (to allow for bin kick-back during lifting).

- **Central Waste Storage Area waste & recycling –** This would be a pull-in, pull-out service by waste contractor so presentation of bins for collection would be in the Central Waste Storage area where they are stored.
- **Lobby Coffee Bar Waste Storage –** This, too, would be a pull-in, pull-out service by waste contractor so presentation of bins for collection would be in the back-of-house area where they are stored (see Figure 2).
- **G.02c Potential Café Waste Storage –** Again, this would be a pull-in, pull-out service by waste contractor so presentation of bins for collection would be in the back-of-house area where they are stored (see Figure 2).

5.2.4 Collection Point & Collection events

- **Torrens-titled townhouses –** Is the kerbside presentation area where Council (side-lifting) kerbside collection trucks would stop and empty the bins (which will be determined by Council when request for collection service is made by residents).
    - There would be weekly collection of general waste bins and fortnightly (alternating) collection of recycling and organics bins.
- **Waste Storage Area waste & recycling –** This will be the collection point parking area for waste collection trucks designated in Figure 2 outside the Central Waste storage area.
    - A common private waste contractor would be engaged by the Strata / Community Corporation to collect all waste / recycling at the site, thus minimising collection events (i.e. one contractor would pick up all bins for the same service at the same time across all land uses).
        - These contractors would use small or standard sized rear-lift trucks for collection of general waste, recycling and food waste in skip bins and/or MGBs.
        - The size of these rear-lift trucks can range from as small as 6.5m up to 10m in length and some trucks can require travel heights up to 3.7m and operating heights up to 3.9m.
        - The clearance of the Ground Level vehicular driveways and car parking areas for the Development is at least 4m, which should be adequate to accommodate these types of trucks (and trucks needed for any other service requirement).
    - Collection vehicles(s) may enter the property in two ways to access the collection point.
        - The truck may enter from Opie Ave in forward direction, manoeuvre on-site to park in the collection point area, then exit in forward direction back onto Opie Ave.
            - This access manoeuvre has been modelled by the Traffic Engineer for an MRV (8.8m vehicle) – see Figure 4 overleaf – to demonstrate that this access arrangement should be feasible for waste trucks.
        - Alternatively, the truck may be able to enter in a forward direction from Hart Ave using a right-of-way that is being negotiated with the neighbouring property (Citify, 5 April 2018) so vehicles can enter the Development (from the Northern side) and reach the collection point parking area, then exit in forward direction to Opie Ave.
    - Once parked, the contractor would transfer bins from waste storage areas (Central, Lobby Coffee Bar &/or G.02c Potential Café Tenancy) to the collection point, empty them (or load waste items), then return bins to waste storage.
    - The minimum frequency of collection would be as given in Table 4, but this may be relaxed if waste / recycling volumes are less than estimated.

- These collections should take no longer than 10-20 minutes to complete depending on which service is being performed and number of bins to be emptied.

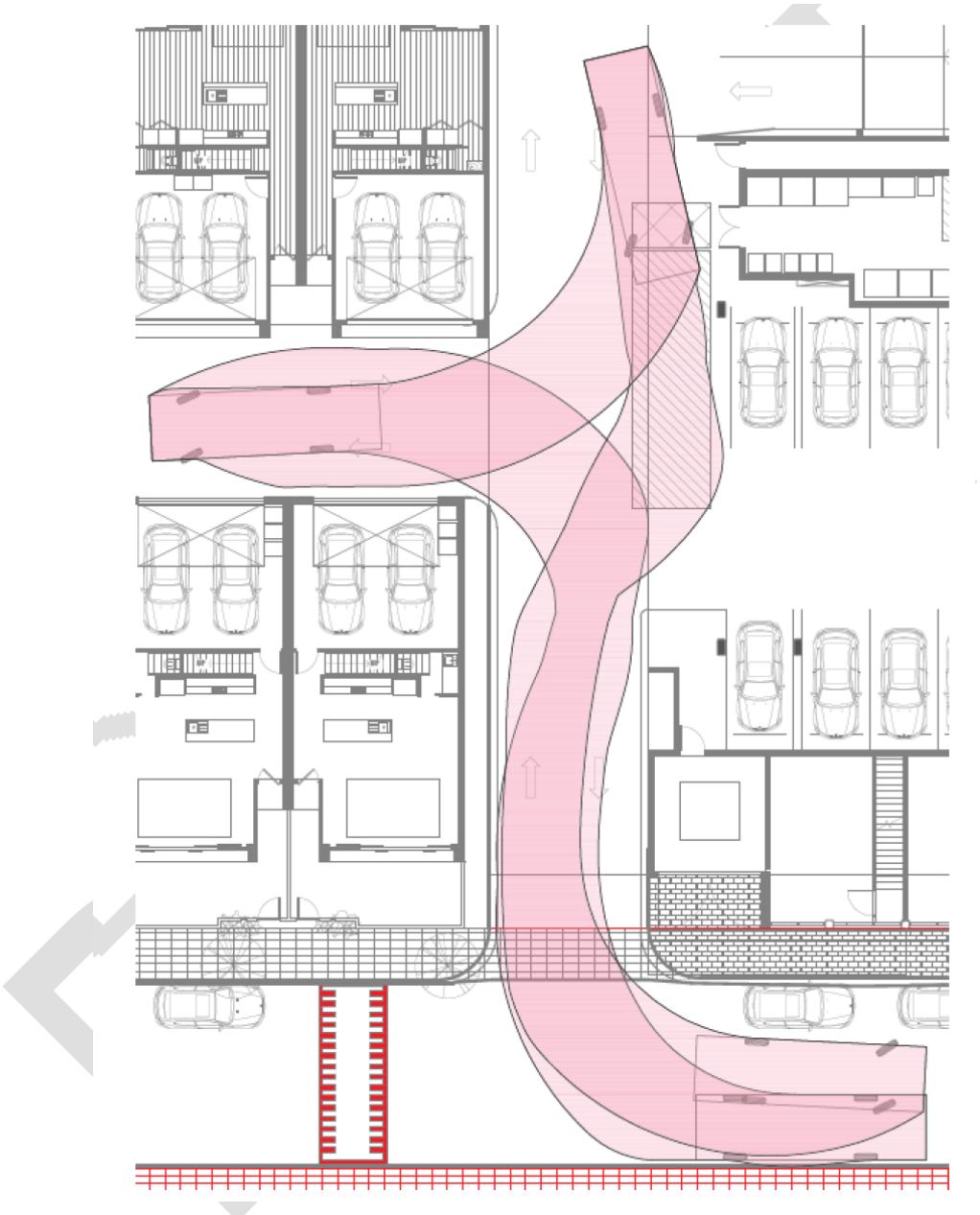

Figure 4 – Traffic Engineer modelling of MRV forward entry, on-site manoeuvering to park at collection, and exit to and from site via Opie Ave, including. *Reproduced from Traffic Engineer's report (Cirqa, 4 April 2018).*

5.2.5 Collection Transfer Pathways

The collection transfer pathways at Ground Level are illustrated in Figure 2.

- **Torrens-titled townhouses** – Residents would transfer bins from their yard to the kerbside presentation area on Opie Ave.
- **Central, Lobby Coffee Bar &/or G.02c Potential Café Tenancy waste storage areas** – Waste contractors would transfer bin / waste items from this area to rear of waste collection trucks parked outside at the collection point.
- **Other** – There may be other bins / waste item located elsewhere in the Development, e.g. for sanitary waste in toilets, confidential paper bins in offices, etc.
    - Waste contractors thus may need to use existing corridors at Ground Level and /or the Lift to collect these items directly from these locations and transfer them to the Central Waste Storage Area collection point for disposal or to remove from site.

These transfer paths should be free of steps, grades < 1:12, with appropriate hard /even surfaces, and wide enough to accommodate the types of bins/skips being transferred.

5.3 Hard Waste collection services

- **Residential** –
    - **Torrens-titled townhouses** – Should be able to access the Council at-call hard waste collection, where each household is eligible for one free hard waste collections per financial year (see www.unley.sa.gov.au/waste-recycling/recycling-waste).
    - **Apartments & Community-titled townhouses** –
        - The Community / Strata Corporation (on residents' behalf) should inquire with Council regarding whether these residents can access the Council hard waste collection when the building becomes operational, including establishing suitable arrangements and presentation location for the service.
        - If the Council service is not available, the Community / Strata Corporation would organise private hard waste collection services for residents.
            - This would involve at-call hard waste collection by a private contractor organised by residents direct from their dwellings.
            - Where appropriate and arranged with the Community / Strata Corporation, the temporary hard waste storage area in the Central Waste Storage room may be used to facilitate these services.
            - The contractor would use the collection point zone outside Central Waste Storage room for hard waste collection services.
- **Commercial tenants** – Would organise their own hard waste collection direct from tenancies using a private contractor.
- The private contractors supplying hard waste collection services would use the collection point parking outside Central Waste Storage room for hard waste collection services.

5.4 Collection & Traffic Issues

- **Routine Services –**
    - **Torrens-titled townhouses** – This is a standard Council kerbside collection service, which is already provided to other residents along Opie Ave.
        - These services only occur once a week on a designated collection day.
        - Parking controls on this collection day may be needed on Opie Ave, to ensure the truck can access these bins presented on the road verge.
    - **All other Services from Central Waste Storage Area collection point –** The Development has been designed with a dedicated on-site collection point (that does not interfere with other vehicular activity when trucks are parked) and forward entry and exit to and from the site.

        - There will be up to 9 Routine collection events per week (assuming no additional services are elected by Commercial tenants) where trucks will enter and exit the site from Hart and/or Opie Ave via Unley Rd.
        - It should take trucks only 30-60 seconds to enter the site and manoeuvre to park at this collection point, and an even shorter time to exit the site.
        - We recommend that collections are scheduled outside peak access periods to the site (e.g. between 10am – 4pm) to minimise impacts on residents and commercial tenants and mitigate any potential negative impact for Unley Rd during peak traffic hours.
- **Hard Waste** – these collections may occur several times a month depending on how they are organised and managed by the Strata/Community Corporation and/or Council for residents and/or by commercial tenants.
    - **Torrens-titled townhouses** – These collections would occur in same way as for other residents along Opie Ave: trucks would park at the kerbside and loading should occur relatively quickly (e.g. 5-10 min) depending on volume of waste presented.
    - **Central Waste Storage Area collection point –**
        - These collections would use the dedicated on-site collection point provided outside the Central Waste Storage.
        - The collections could take up to 20-30 minutes depending on the volume of waste presented (per event) and where in the building the waste needs to be collected from.

The collection events for above services at the Development should not prove problematic for local traffic or cause any other significant traffic issues.

5.5 Operation, Management & Communication

- ***Waste system operation and management*** – Outside the Torrens-titled townhouses where residents would responsible for their own bins and Council for providing the service, the Strata/Community Corporation would be responsible for managing and operating the waste systems at the site.
- ***Building User Manual*** – Advice and instructions on waste management and using the waste systems would be included in the Building Manual for residents and tenants in the Apartment building and Community-titled townhouses, including contact information for further information, questions and issues.
- ***Community/Strata title arrangements –*** Obligations for residents and/or property owners in the Apartment building and Community-titled townhouses to comply with requirements for using the waste system would be written into the Community/Strata plan lodged with the Lands Titles Office.
- ***Commercial tenancy agreements –*** Would include similar obligations relevant to their waste system.
- ***Emergency Response Plan –*** Would include response measures if:
    - Waste collection services were not available; and
    - Chute failure occurred for residential waste system in Apartment Building.

5.6 Other Waste System Design or Management Issues

The following would be considered and/or implemented. More details for some of these items can be resolved at detailed design stage with equipment suppliers or when leases for commercial tenants are being negotiated.

- ***Bins*** – These would align to Council bin colours or otherwise comply with Australian Standard for Mobile Waste Containers (AS 4213), including bins colours.
    - Council would provide the bins Torrens-titled townhouses where providing a kerbside service.

- ***Signage*** –
    - Appropriate signage would be used to ensure correct disposal of waste and recycling at all local disposal points for the Apartment building and Community-titled townhouses.
    - This signage should conform to the signage requirements in South Australian Better Practice Guide – Waste Management in Residential or Mixed-Use Developments (Zero Waste SA, 2014).
    - Council may supply signage residential disposal points for this purpose.
    - Commercial tenants should be encouraged to provide and install their own signage in disposal and waste storage areas.
- ***Vermin, hygiene & odour management*** (inc. ventilation)
    - *Inspection & Cleaning* –
        - An inspection and cleaning regime would be developed and implemented by Strata/Community Corporation for the waste systems, including waste chutes, in the Apartment Building to ensure that surfaces and floors around disposal areas, transfer pathways and waste storage areas are kept clean and hygienic and free of loose waste and recycling materials.
            - *Note: Waste chutes would come equipped with their own cleaning systems including water supply and sprinkler points.*
            - *The bin discharge area in the Central Waste Storage area would therefore need to be graded to sewer with tiling or epoxy coating to floors and adjacent walls to waterproof the area during these cleaning events.*
        - Commercial tenants would be required to undertake similar inspection and cleaning regimes as part of their tenancy agreement.
    - *Odour Control* –
        - All waste storage areas would be mechanically ventilated to ensure negative pressure for control of odours.
            - *Note: For the Central waste storage area, the waste chutes would come with their own roof-top extraction system to maintain negative pressure to avoid odour emissions during operating.*
            - *These chute extraction systems can serve as the mechanical ventilation system for the Central waste storage area.*
        - The ventilation would extract to atmosphere, to prevent odour build up.
        - The extraction vent discharge location would be selected to avoid impact on residents, tenants and/or neighbours.
        - The general waste and food waste bins for the Community-titled townhouses' Ground-level drop off point at the Central Waste Storage area may also be fitted with a shroud connected to the room's ventilation/ extraction system, to minimise undesirable odour dispersal within the room.
    - *Bin cleaning* -
        - An on-site bin cleaning area is provided.
        - This activity would be managed by the Strata/Community Corporation and may be outsourced to an external contractor as part of the above hygiene and odour management program.
        - This bin wash area will require grading to a sewer drain with basket screen to remove gross solids, tiles or epoxy coating to water-proof adjacent walls and flooring, standard cold-water supply faucet and commercial-grade electrical power supply (if pressure washer system is to be used), plus bunds and screens for use during bin wash events.
- ***Access & security*** –
    - Access to the shared Waste Storage Area should be secure and only accessible by key or fob or access code.

        - This key or fob or access code would be provided to the waste contractor(s) to access the Central Waste Storage area for collection.
    - CCTV is recommended to monitor waste disposal practices in the Central Waste Storage area and Ground level disposal point for Community-titled townhouses.

I trust that this letter and WMP assists with assessment of the proposed development. Please let me know of any queries or where further information is required.

Yours Sincerely,

Chris Colby

Principal Consultant & Managing Director – **Colby Industries**

References:

Adelaide City Council. (2016, September 27). *Guide to waste & recycling bins.*

Cirqa. (4 April 2018). *PROPOSED MIXED-USE DEVELOPMENT 248 UNLEY ROAD, HYDE PARK - TRAFFIC AND PARKING REPORT.*

Citify. (5 April 2018). *Personal Communication with Joel Wilkinson regarding collection access to 248 Unley Rd, Hyde Park.*

Zero Waste SA. (2014). South Australian Better Practice Guide – Waste Management in Residential or Mixed Use Developments.

Attachment 1 – Ground Floor and Level 2 plans for proposed development (on following pages)

Note: These drawings are provided for illustration only, they are not to scale, please refer to other illustrations or to original plans for scaled drawings

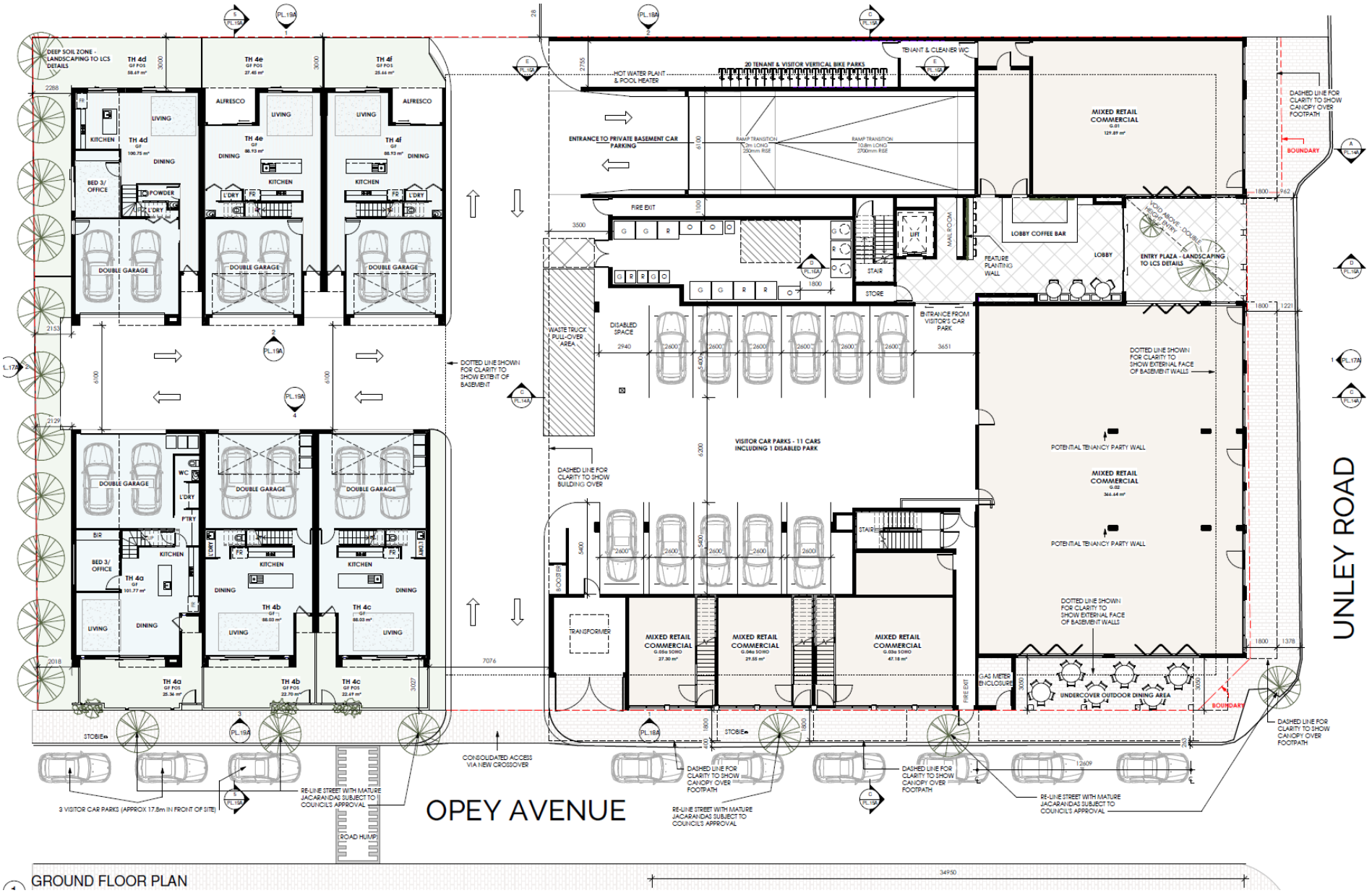

Figure A1-5: Ground floor plan for proposed development at 248 Unley Rd, Hyde Park. NTS

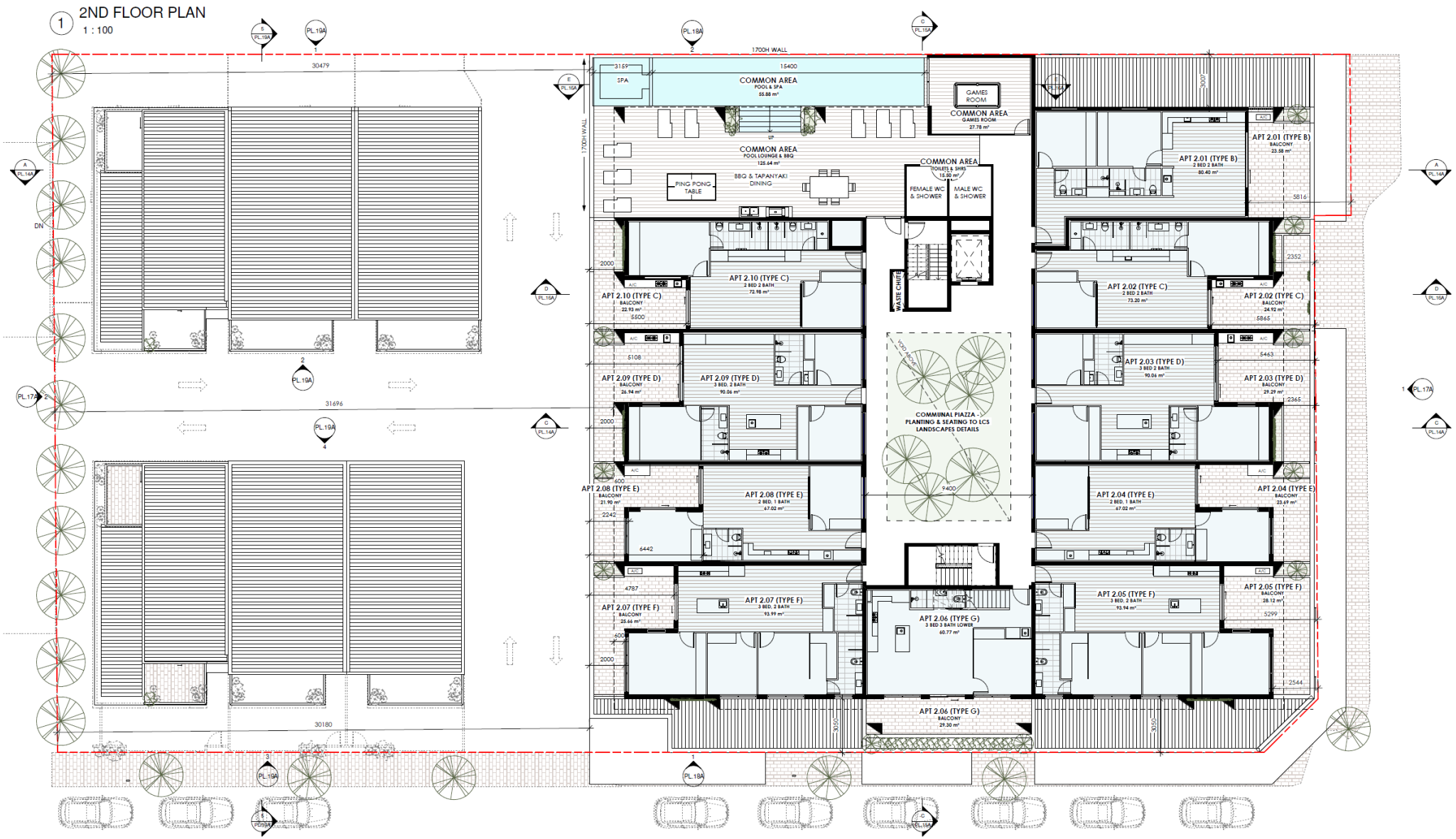

Figure A1-6: Level 2 floor plan for proposed development at 248 Unley Rd, Hyde Park. NTS

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Citify & BFC Pty Ltd

11 Indama St

Regency Park, South Australia, 5007, Australia

6 February 2018

Ref: 50B-17-0128-DRP-805328-1

Attention: Joel Wilkinson

Dear Joel Wilkinson,

248 Unley Road Hyde Park Acoustic Assessment

1 INTRODUCTION

Vipac has been engaged to provide preliminary acoustic recommendations for the proposed development (the development) at 248 Unley Road, Hyde Park SA. The mixed use development will comprise residential dwellings over five levels (levels 2-6), with commercial spaces on the ground floor and first level. Car parking serving the development will occupy part of the ground level and 2 basement levels. In addition to the mixed-use building, 8 town houses are proposed to be constructed to the rear of the development. . These townhouses are not subject to this acoustic assessment.

This acoustic assessment focuses on the impact of road traffic noise on the development as well as the impact of operations from the development on the acoustic amenity of the area and nearby noise sensitive receivers. At the time of the assessment, limited information pertaining to the intended use of the development's commercial spaces was available. A gymnasium may be intended to be opened on the first level. Noise from the operations of any commercial space is recommended to be assessed at a later stage of the development once the intended use is confirmed.

To gain a comprehensive understanding of the acoustic environment within the vicinity of the subject site Vipac conducted attended noise measurements, in addition to a site inspection. The development has been assessed against relevant noise criteria and proposed recommendations have been provided. A glossary of acoustic terminology is presented in **Appendix A.**

2 SUBJECT SITE AND ADJACENCIES

The subject site is located on the western side of Unley Road between Hart Avenue to the north and Opey Avenue to the south. The subject site is located within an Urban Corridor zone of the Unley (City) Development Plan, shown in an extract presented in Figure 1.

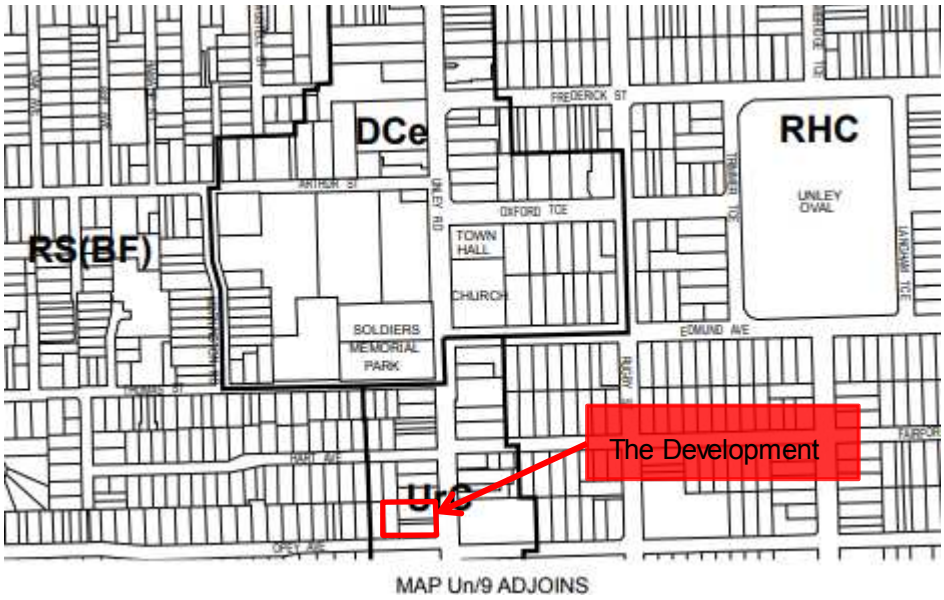


Figure 1 Extract from Unley (City) Development Plan and the site of the Development (Red)

The subject site and surrounding localities is presented in Figure 2. The development is surrounded by the following adjacencies:

- To the north; at present there are business premises including Kwik Kopy and F45 Unley at 244/246 Unley Road, however; Vipac understands that a proposal for a new development comprising commercial and residential uses is under consideration by the State Commission Assessment Panel.
- To the east; commercial buildings on Unley Road, most notably the Cremorne Hotel which is immediately opposite the development site.
- To the west; residential dwellings located on Opey Avenue. The property located at 6 Opey Avenue is the nearest existing noise sensitive receiver and is located in a Residential Streetscape (Built Form) zone.
- To the south; commercial businesses, predominantly located within the Metro Shopping Centre (254 Unley Road, Hyde Park).

The existing acoustic environment within the vicinity of the proposed development is dominated by traffic noise from Unley Road. Operations and music from the Cremorne hotel are audible in the absence of traffic at night; however road traffic is the dominant noise source.

Figure 2 Development Site at 248 Unley Road, Hyde Park and adjacent localities

3 NOISE CRITERIA

3.1 MINISTER'S SPECIFICATION SA 78B

The purpose of Minister's Specification SA 78B (the Specification) is to protect occupants of Class 1, 2, 3 and 4 buildings and 9c aged care buildings (as defined in the National Construction Code) from the impact of existing or future road and rail noise and noise from mixed land use areas.

The minister's specification outlines performance requirements for the building envelope to provide sufficient acoustic amenity to the occupants and protect against the intrusion of noise from; road and rail movement, people in public places and entertainment venues where music is played.

The performance requirements are provided in section B3 of the specification. The internal noise criteria for road and rail noise intrusion are presented in Table 3-1. Intrusion of external music noise must not exceed a suitable internal noise criteria obtained from either the responsible council or the South Australia's Environment Protection Authority.

Table 3-1: Internal sound criteria for road and rail sound intrusion

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

As the subject site is within a "designated area" as identified by the Unley (City) Council Development Plan [6] (by virtue of fronting a Type B road), the Specification applies to the subject development. Minimum construction requirements based on 'sound exposure category' (SEC) are determined by the separation distance from Unley road, as defined in the Specification.

3.2 ENVIRONMENT PROTECTION (NOISE) POLICY 2007

3.2.1 CONTINUOUS NOISE SOURCES

The Environment Protection (Noise) Policy 2007 (EPP 2007) [1] sets out the maximum allowable noise levels for noise egress from the subject development in terms of A-weighted Equivalent Continuous Noise Levels over 15-minute intervals ($L_{Aeq,15min}$) based on the time of day and land use, applicable at the nearest noise sensitive premises.

Based on the site location and the land zoning provided by the Unley (City) Development Plan [6], the subject site is located within a zone designated as "*Urban Corridor*". The closest noise sensitive receivers near the development are located within an adjacent "*Residential*" zone [6]. As per Part 5, Clause 5, Subclause (5) the indicative noise factor is to be the average of the indicative noise factors for the two adjacent zones. For this assessment the *"Urban Corridor"* zone has been deemed to be a mixed use zone, given the presence of multiple commercial businesses in the near vicinity on Unley Road.

The indicative noise factor based on time of day for the relevant land zoning as per Table 2 of the EPP 2007 [1] are presented in Table 3-2.

For new developments Part 5, Clause 20 of the EPP 2007 states that, "A predicted source noise level (continuous) for a new development should not exceed the relative indicative noise level less 5 dB(A)." The noise limits applied to the proposed development are presented in Table 3-2.

Table 3-2: Derived EPP 2007 Noise limits

	Day-time (7:00 a.m. to 10:00 p.m.)	**Night-time (10:00 p.m. to 7:00 a.m.)**
Indicative noise factor (Residential zone/Commercial zone)	57	50
Less 5 dB(A)	-5	-5
Residential zone, Noise Limit	**52**	**45**

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

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

Noise egress from the development is not predicted to exhibit any characteristics as measured at the noise sensitive receivers.

3.2.2 INTERMITTENT NOISE SOURCES

The EPP 2007 provides a maximum noise egress criterion (L_{Amax}) of 60dB(A) during the night-time period as measured at the nearest noise sensitive receiver. This applies to noise of intermittent nature such as a car door slam and vehicle movements.

3.2.3 WASTE COLLECTION

The EPP 2007 provides special noise control provisions for noise associated with waste collection activities as stipulated in Part 6, Division 3 of the policy. Any noise associated with waste collection which has the potential to adversely impact on the acoustic amenity shall be restricted to the hours of between; 9:00am – 7:00pm on a Sunday or any other public holiday and 7:00am – 7:00pm on any other day.

Maximum noise levels from waste collection activities shall not exceed 60dB(A) as measured from the noise-affected premises with the exception that the ambient maximum noise level at the affected-premises consistently exceeds 60dB(A) due to existing conditions.

3.3 WORLD HEALTH ORGANISATION – GUIDELINES FOR COMMUNITY NOISE

Intermittent noise events such as slamming of car doors, car horns sounding, train pass by events and similar have the potential to result in sleep disturbance. It is appropriate to consider the World Health Organisation (WHO) (1999) *Guidelines for community noise* [8], which recommends a maximum internal noise level, L_{Amax}, of 45dB(A) in a bedroom, which is equivalent to approximately 55dB(A) to 60dB(A) at the façade of the residential building with windows partially open.

3.4 INTERNAL NOISE CRITERIA – COMMERCIAL SPACES

AS 2107 [5] sets recommended internal noise criteria for building spaces based on the type of occupancy and activities expected within. Typical internal noise targets recommended by AS 2107 are presented in Table 3-3.

Table 3-3 Design Sound Levels for Different Areas of Occupancy in Buildings (AS 2107[5])

Type of Occupancy/Activity	Design Sound Level Range
General Office Areas	40-45 dB(A)
Coffee Shop/Restaurant	40-50 dB(A)

3.5 CRITERIA SUMMARY

From the criteria outlined in Sections 3.1, 3.2 and 3.3, the most stringent noise target to be achieved is the Minister's Specification in 3.1. Consequently the criteria in Table 3-1 are adopted for the assessment of noise impacts on residents living in the development in this report. For the nearest noise affected residential receivers, the criteria in Table 3-2 are adopted. Recommended internal design targets for commercial spaces of the development, depending on the intended use, are presented in Table 3-3.

4 NOISE MEASUREMENTS

4.1 OPERATOR ATTENDED NOISE MEASUREMENTS

Operator attended noise measurements were taken at the site in order to obtain typical noise levels during both the daytime and night-time periods that are anticipated to represent the worst case noise levels due to traffic on Unley Road. The measurement location was 248 Unley Road, immediately in front of the site of the development on the footpath, facing east with a direct line of sight to Unley Road. 15 minute measurements were taken on Monday 5 February 2018 (daytime) and Monday 5 February 2018 (night-time). Both measurements were taken in accordance with AS1055 [3].

4.2 EQUIPMENT

The equipment used for the operator attended measurements is presented in Table 4-1. All equipment used holds current calibration certification.

Table 4-1: Environmental noise assessment equipment

Equipment	Serial Number	Last Calibration Date	Next Calibration Date
Brüel & Kjaer Type 1 Hand-held Analyser model 2250-G4 Sound Level Meter	3012267	29th January 2018	29th January 2020
Larson Davis CA-250	2386	29th November 2017	29th November 2018

4.3 NOISE MEASUREMENTS RESULTS

15 minute operator attended noise measurements were conducted in both the daytime and night-time period. The results from the attended noise measurements are presented in Table 4-2. The attended noise measurements were not affected by inclement weather conditions. Road traffic was observed to be the dominant source of noise that will affect the development. Cremorne Hotel operations were audible; however it is considered that the road traffic noise is more significant and should dictate the acoustic design.

Table 4-2: Attended noise measurements

Date & Time	L_{Aeq} dB(A)	L_{Amax} dB(A)	L_{90} dB(A)	L_{10} dB(A)	Comments & Observations
05/02/17 15:51	70	86	59	73	Road traffic noise from Unley Rd dominant (maximum level Bus pass-by: 86 dB(A))
05/02/17 22:18	64	76	50	68	Road traffic noise from Unley Rd dominant (maximum level Car: 76 dB(A)). Music and talking from Cremorne Hotel beer garden audible when no traffic present (~50 dB(A)).

5 NOISE ASSESSMENT

The noise assessment outlines required treatments for the development based on road traffic noise intrusion. It is considered that appropriate treatment for road traffic noise will be sufficient to attenuate noise from operations from the Cremorne hotel. Noise from the Cremorne, including music, is considered to be less significant than the impact of road traffic noise. The influence of mechanical plant installed on the development and their effect on the nearest sensitive receivers has also been considered.

5.1 MINISTER'S SPECIFICATION SA 78B

To assess the level of acoustic treatment required in accordance with the Minister's Specification, the highest predicted day ($L_{eq,15hr}$) and night ($L_{eq,9hr}$) period noise levels were examined. Night period noise levels are applicable to bedrooms while day period noise levels are applicable to all other habitable spaces. The noise levels used for the basis of the noise assessment are presented in Table 5-1, which were calculated using the methodology outlined in 'B5 Verification Method' [4]. These are the predicted worst-case levels at the development site for which acoustic design will be required to allow for suitable attenuation such that the internal noise criteria as per 3.1 can be achieved.

Table 5-1 Worst Case Assessment Noise Levels

	Day-period (0700 – 2200)	**Night-period (2200 – 0700)**
Predicted Noise Levels, $L_{eq,15hr}$ / $L_{eq,9hr}$	76	71

SA 78B specifies minimum construction requirements for building facades based on the 'sound exposure category' (SEC) [4] calculated based on the separation distance to specified road type (from 3m within the transport corridor boundary), and the posted speed limit. (in this case a Type B road with a posted limit of 60km/h [1]). Table 5-2 shows the relevant SECs for Unley Road.

Table 5-2 Sound Exposure Categories for Unley Road (Type B, 60 km/h)

Sound exposure category	**Separation distance from road (m)**
1	35 < 60
2	20 < 35
3	10 < 20
4	< 10
5	N/A

The relevant SECs for levels 2 – 6 are defined for each facade (east, west, north and south) in Figure 3, Figure 4 and Figure 5.

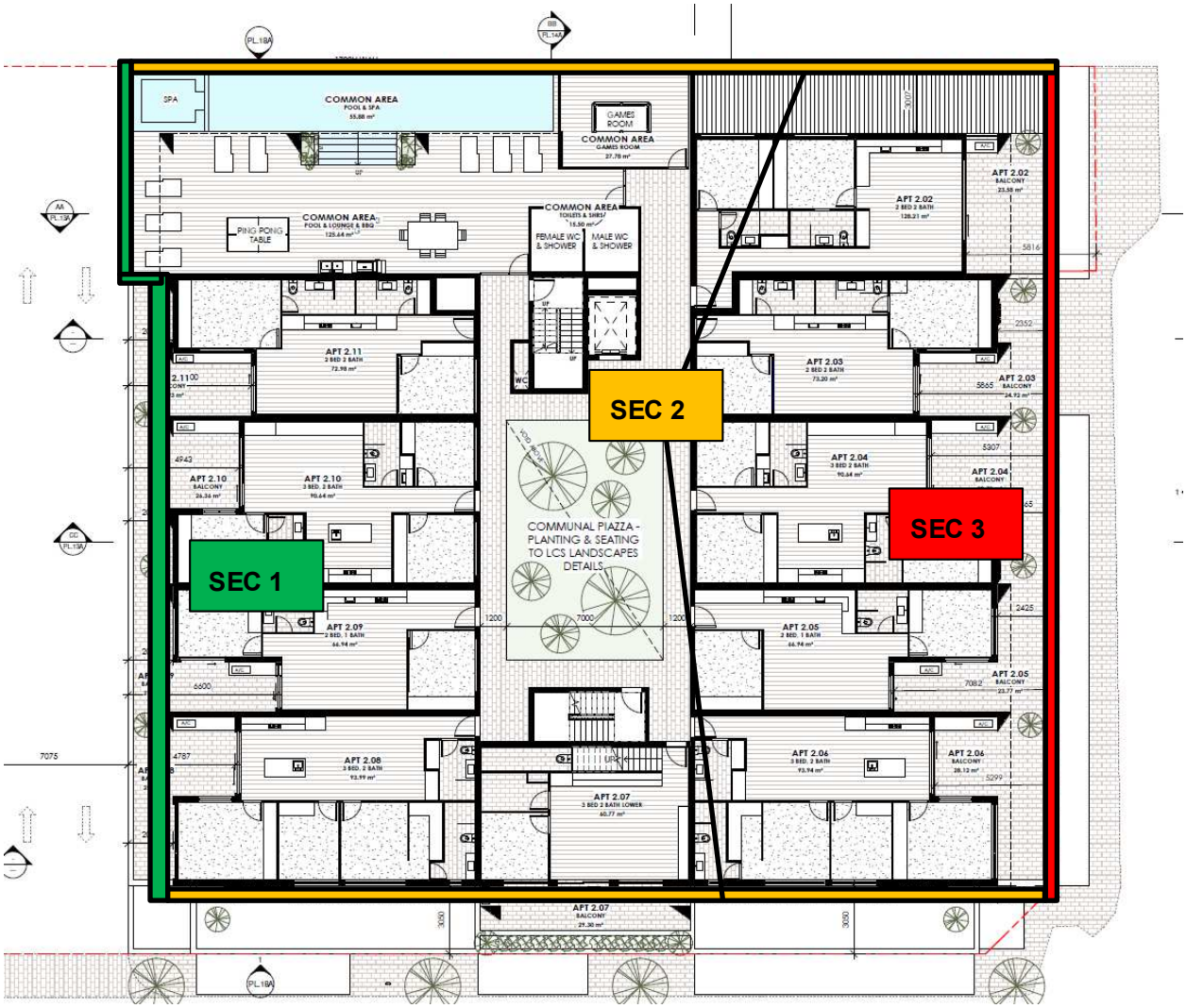


Figure 3 Sound Exposure Categories: Level 2, Level 3 and Level 4 (level 2 shown in the image)

The 4 facades of the building for level 2, level 3 and level 4 have the same SEC categories.

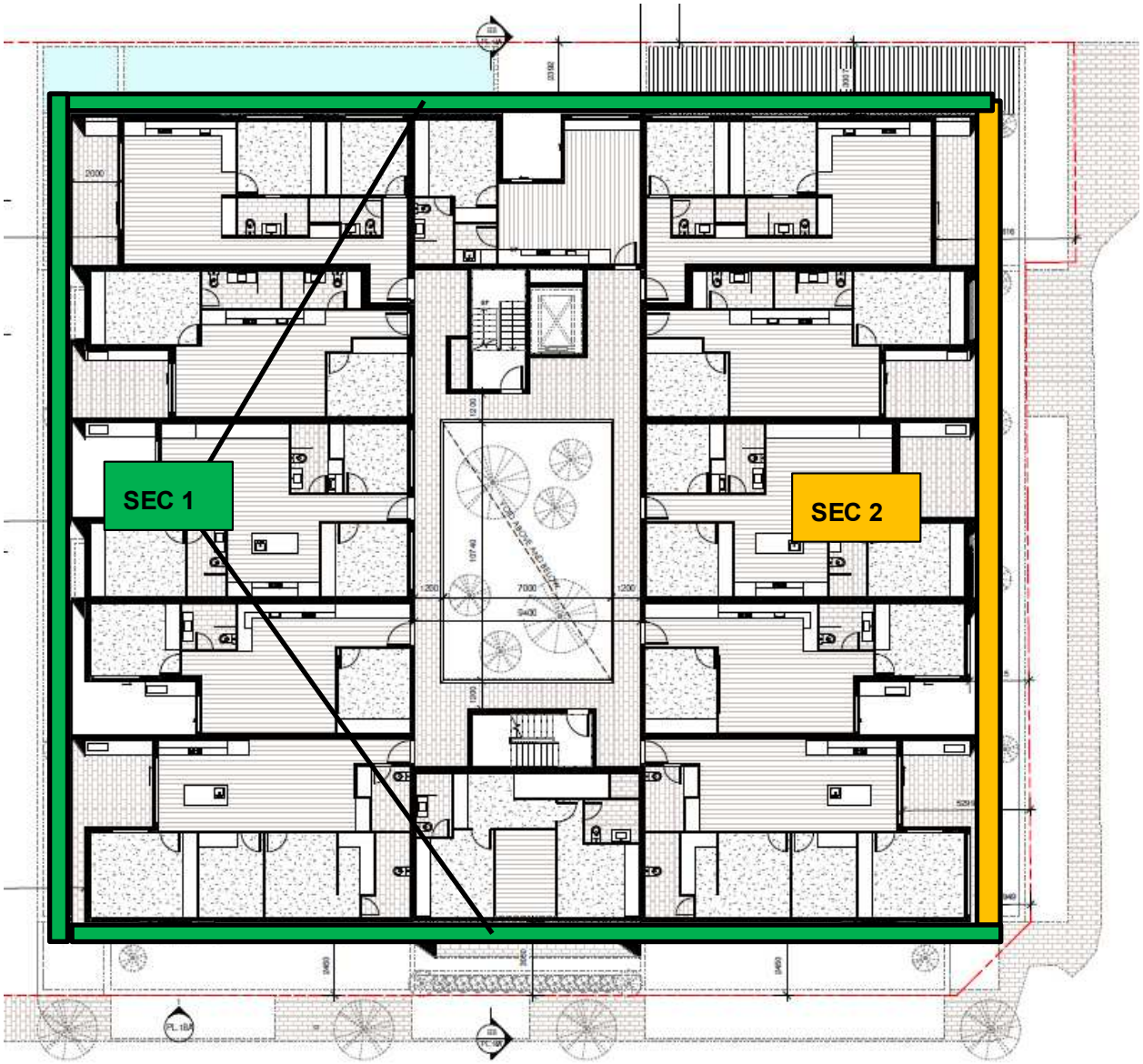


Figure 4 Sound Exposure Categories: Level 5

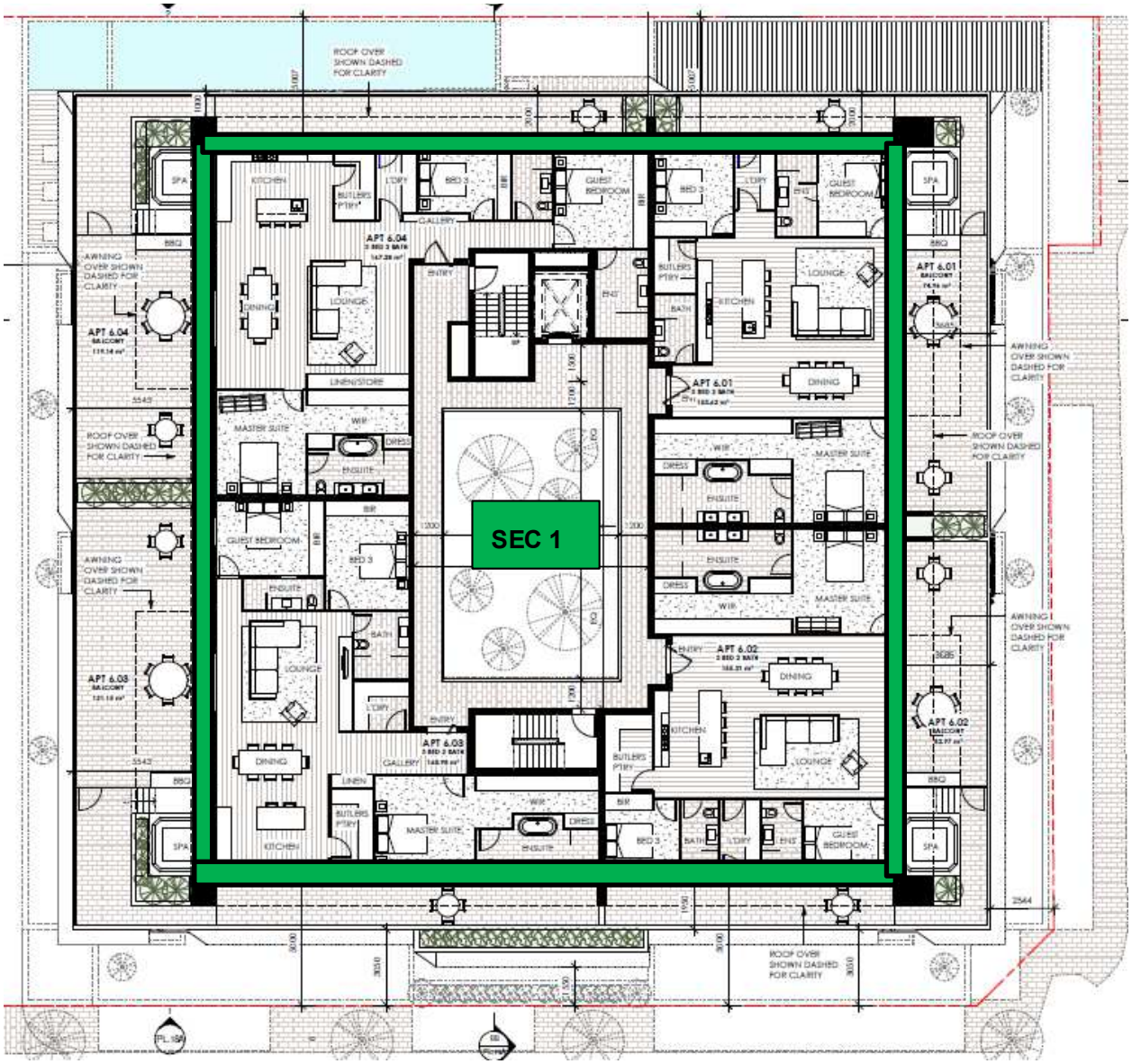


Figure 5 Sound Exposure Categories: Level 6

The required sound insulations for the defined SECs are presented in Table 5-3.

Table 5-3 Minimum airborne sound attenuation ratings for habitable rooms

SEC	Applies to Development Levels	Building Element	Location	Acoustic Requirements
1	2, 3, 4, 5, 6	External Walls	All habitable rooms	$R_W+C_{tr} \geq 45$
		Windows and external glass doors	*See table, applicable values highlighted green*	
2	2, 3, 4, 5	External Walls	All habitable rooms	$R_W+C_{tr} \geq 50$
		Windows and external glass doors	*See table, applicable values highlighted orange*	
3	2, 3, 4	External Walls	All habitable rooms	$R_W+C_{tr} \geq 50$
		Windows and external glass doors	*See table, applicable values highlighted red*	

Table 5-4 Minimum airborne sound attenuation ratings for closed windows and external glass doors to habitable rooms

Room	Area of a window and external glass doors as a percentage of the floor area of the room	Designated sound exposure category and corresponding $R_{w+}C_{tr}$ value		
		1	2	3
Bedroom and attached non-habitable room	Not more than 20%	25	28	31
	More than 20% but not more than 40%	28	31	34
	More than 40% but not more than 60%	31	34	Note 1
	More than 60% but not more than 80%	34	Note 1	Note 1
	More than 60% but not more than 80%	37	Note 1	Note 1
Habitable rooms (other than bedrooms and enclosed kitchens) and attached non-habitable rooms	Not more than 20%	22	25	28
	More than 20% but not more than 40%	25	28	31
	More than 40% but not more than 60%	28	31	34
	More than 60% but not more than 80%	31	34	Note 1
	More than 60% but not more than 80%	34	Note 1	Note 1

Notes:

1. Windows and external glass doors are outside the scope of the deemed-to-satisfy provisions. Once the window schedule is known, a further assessment from an acoustic consultant is required.

5.2 COMMERCIAL SPACES

Based on the calculation of daytime traffic noise in 5.1, external window and door glazing should be required to meet a minimum noise attenuation of $R_W+C_{tr} \geq 35$ in order to meet the noise targets set for office spaces in section 3.4. This assumes the external façade of the building is built to NCC [9] standards.

5.3 MECHANICAL PLANT

Mechanical plant will be deemed to be suitable for the development provided that the noise impact of the plant does not exceed the environmental noise criteria established in Section 3.2.1 (Table 3-2) at the nearest residential receiver (6 Opey Avenue). Preliminary recommendations in this regard are provided in Section 6.6 below.

5.4 CAR PARK NOISE

For the planned layout of the development, car park noise is not considered to an issue in requirement of any additional noise treatments, provided that the existing fence located between the development site and the adjacent property at 6 Opey avenue remains (or is replaced by a fence of similar properties). The ground floor carpark of the development is a sufficient distance from the nearest receivers that the predicted noise impact will not exceed any criteria defined in Section 3.

6 PRELIMINARY RECOMMENDATIONS

Conceptual recommendations that are indicative of what is required to achieve compliance is presented in this section. Alternative designs similar to these may also achieve compliance.

6.1 ROOF AND CEILING

Ceilings within the building, with the exception of level 6 apartments, will need to be built to satisfy inter-tenancy airborne noise and impact requirements in accordance with the NCC [9].

The roof and ceiling for level 6 are to be built to NCC requirements [9] – this will be sufficient for attenuation of noise (given that a SEC of 1 applies for all level 6 building facades).

6.2 EXTERNAL WALLS

The ground floor and levels 1-5 should be built to achieve an $R_W+C_{tr} \geq 50$. Indicative solutions may be achieved following the construction techniques in **Table 2** of **Specification F5.2** of the NCC [9].

Level 6 should be built to achieve an $R_W+C_{tr} \geq 45$. An indicative solution is as follows:

- One row of 90mm studs at 600mm centres with –
  - Resilient steel channels fixed to the outside of the studs
  - One layer of 19mm board cladding fixed to the outside of the channels and 6mm fibre cement sheets fixed to the inside of the channels
  - 75mm thick glass or mineral wool insulation with a density of 11 kg/m^3 positioned between the studs
  - Two layers of 16mm fire-protective grade plasterboard fixed to the inside face of studs

6.3 EXTERNAL WINDOWS AND DOORS

Windows and external doors will need to be reviewed at the detailed design stage. Once the areas of the windows/doors as a percentage of the floor areas are known the appropriate acoustic attenuation as per Table 5-4 may be defined. Should the areas be >60% for Levels 2,3 and 4, an acoustician will be required to verify the acoustic attenuation acquired in accordance with Section B5 of the Minister's Specification [4]. Indicative solutions for windows and doors of the varying acoustic attenuation are defined in Section C5.4 (Table 11) of the Minister's Specification [4].

Should Table 11 of the Minister's Specification be followed, windows and external glass doors must:

(a) Have a seal to restrict air infiltration fitted to each edge of an open window
(b) Glass in external doors must be set and sealed in an airtight non-hardening sealant, or a soft elastomer gasket or glazing tape.

Alternatively, a manufacturer can confirm that windows/external glass doors comply with the acoustic ratings defined in Table 5-4 than this will also be deemed to satisfy.

6.4 VENTILATION

For SEC 1-3 natural ventilation must be provided in accordance with NCC [9].

6.5 COMMERCIAL INTERNAL NOISE LEVELS DESIGN

Building design for the commercial tenancies facing Unley Road in the worst case scenario has been considered. Vipac recommend that the following glazing options, or similar designs with appropriate acoustic properties, be considered as acoustic design options for inclusion in the proposed development.

- 6mm laminated glazing / 10 mm airgap / 6mm glazing for the commercial spaces facing Unley Road

This is indicative of what is required to achieve compliance, alternative designs similar to these may also achieve compliance. Acoustic solutions should be reviewed during the detailed design phase.

6.6 MECHANICAL PLANT

The proponents have indicated that Air Conditioners are to be positioned within niches adjacent to balconies within the development, limiting line of site of each unit to the sensitive receivers. Vipac have calculated that the noise criteria at the nearest residential receiver during the worst-case, night-time period (as stated in Table 3-2) will not be exceeded provided the Sound Power Level of each air conditioner is no higher than 72 dB(A). This calculation has assumed that individual air conditioners are used for all apartments and internal spaces, and no barrier exists between the units and the nearest residential receiver. Vipac reiterate that this is a worst-case calculation and recommend re-assessing mechanical plant at the detailed design phase once the details and locations have finalised.

7 CONCLUSION

Vipac has conducted a preliminary acoustic assessment of the proposed development at 248 Unley Road, Hyde Park. The proposed development is feasible provided that the acoustic design mitigates road traffic noise from Unley Road in accordance with the defined criteria in Section 3. Acoustic requirements and recommendations have been presented in Section 5 and Section 6. A further acoustic assessment is required at the detailed design stage.

Yours sincerely,

Vipac Engineers & Scientists Ltd

James Tudor

Acoustic Consultant

8 REFERENCES

[1] Development drawings *248UR PL-00 – 16A* (14 drawings) as provided by Citify Pty Ltd on 10 December 2017.

[2] Environment Protection (Noise) Policy 2007, Environment Protection Act 1993, Government of South Australia.

[3] Australian Standard AS1055-1997 Acoustics – Description and measurement of environmental noise.

[4] Minister's Specification SA 78B Construction requirements for the control of external sound, February 2013, Government of South Australia.

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

[6] Unley (City) Development Plan consolidated 19 December 2017.

[7] Guidelines for the use of the Environment Protection (Noise) Policy 2007, June 2009, Environment Protection Authority, South Australia.

[8] World Health Organization (1999), "*Guidelines for Community Noise".*

[9] National Construction Code 2016 Volume Two, Building Code of Australia, Class 1 and Class 10 Buildings

Attachments:

Appendix A: Glossary of Acoustic Terminology

Appendix A : GLOSSARY OF ACOUSTIC TERMINOLOGY

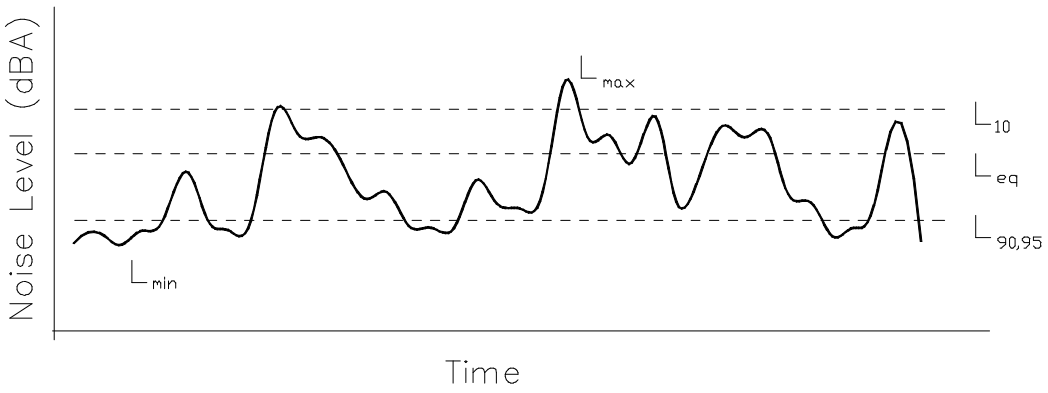
dBA A unit of measurement, decibels(A), of sound pressure level which has its frequency characteristics modified by a filter ("A-weighted") so as to more closely approximate the frequency response of the human ear.

L_{10} The noise level which is equalled or exceeded for 10% of the measurement period. L_{10} is an indicator of the mean maximum noise level, and is used in Australia as the descriptor for intrusive noise [usually in dB(A)]. Nominal measurement period is usually 15 minutes.

L_{90} The noise level which is equalled or exceeded for 90% of the measurement period. L_{90} or L_{95} is an indicator of the mean minimum noise level, and is used in Australia as the descriptor for background or ambient noise [usually in dB(A)].

L_{eq} The equivalent continuous noise level for the measurement period, weighted for duration and intensity. L_{eq} is an indicator of the average noise level [usually in dB(A)].

L_{max} The maximum noise level for the measurement period [usually in dB(A)].



Note: The subjective response or reaction to changes in noise levels can be described as follows:

A 3dBA change in sound pressure level is just noticeable or perceptible to the average human ear; a 5dBA increase is quite noticeable and a 10dBA increase is typically perceived as a doubling in loudness.

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Vipac Engineers & Scientists

Citify & BFC Pty Ltd

248 Unley Road, Hyde Park

Wind Impact Statement

30N-17-0240-TNT-637084-0

23 January 2018

Report Title: Wind Impact Statement **Job Title: 248 Unley Road, Hyde Park**	
DOCUMENT NO: 30N-17-0240-TNT-637084-0 **PREPARED FOR:** Citify & BFC Pty Ltd 11 Indama Street Regency Park, South Australia, 5010, Australia **CONTACT:** Joel Wilkinson **Tel:** 0409 795 312 **Fax:**	**REPORT CODE:** TNT **PREPARED BY:** Vipac Engineers and Scientists Limited 279 Normanby Rd, Port Melbourne, VIC 3207, Australia **Tel:** +61 3 9647 9700 **Fax**: +61 3 9646 4370

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0	23/01/2018	Initial Issue
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2		

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KEYWORDS:

EXECUTIVE SUMMARY

Citify & BFC Pty Ltd commissioned Vipac Engineers and Scientists Ltd to prepare a statement of wind effects for the proposed development of 248 Unley Road, Hyde Park, South Australia. This appraisal is based on Vipac's experience as a wind-engineering consultancy.

Drawings of the proposed development were provided by **Citify** in **January 2018**, as described in Appendix C of this report.

The findings of this study can be summarized as follows:

- With proposed design the development would be expected to have wind conditions in the footpath areas within the walking comfort criterion;
- With the proposed design, the entrances would be expected to have wind conditions within the recommended standing comfort criterion;
- With the proposed design, the communal terraces on Level 2 would be expected to have wind conditions within the recommended walking comfort criterion, and would likely also achieve the more stringent standing or sitting comfort criteria.

The assessments provided in this report have been made based on experience of similar situations in Adelaide and around the world. As with any opinion, it is possible that an assessment of wind effects based on experience and without experimental validation may not account for all complex flow interactions. Vipac recommends a scaled wind tunnel study in the detail design stage to verify the predictions and determine the optimal wind controls, wherever necessary.

TABLE OF CONTENTS

1 INTRODUCTION

Citify & BFC Pty Ltd commissioned Vipac Engineers and Scientists Ltd to prepare a statement of wind effects for the proposed development at 248 Unley Road, Hyde Park, South Australia. This appraisal is based on Vipac's experience as a wind-engineering consultancy.

The proposed multi-storey development comprises of residential apartments, town houses and car parks with commercial tenancies on the ground level. The proposed development is bounded by Unley Road to the east, Opey Ave to the south, and existing developments in all other directions (See Figure 1). The maximum height above the ground is approximately 25m (Figure 2).

This report details the opinion of Vipac as an experienced wind engineering consultancy regarding the wind effects in ground level public areas and access-ways adjacent to the development as proposed. No wind tunnel testing has been carried out for this development at this stage. Vipac has carried out wind tunnel studies on a large number of developments of similar shape and having similar exposure to that of the proposed development. These serve as a valid reference for the prediction of wind effects for this development. Empirical data for typical buildings in boundary layer flows has also been used to estimate likely ground level wind conditions adjacent to the proposed development [2] & [3].

Drawings of the proposed development were provided by **Citify** in **January 2018**, as described in Appendix C of this report.

Figure 1: Aerial view of the proposed 248 Unley Road development site

Figure 2: South elevations of the proposed development.

2 ANALYSIS APPROACH

When considering whether a proposed development is likely to generate adverse wind conditions in adjacent ground level areas, Vipac considers five main points:

- The exposure of the proposed development to wind;
- The regional wind climate;
- The geometry and orientation of the proposed development;
- The interaction of flows with adjacent developments;
- The assessment criteria, determined by the intended use of the public areas affected by wind flows generated or augmented by the proposed development.

The pedestrian wind comfort at specific locations around a site may be assessed by predicting the worst annual 3-second wind gust expected at that location. The location may be deemed generally acceptable for its intended use if the annual 3-second gust is within the threshold values noted in Section 2.5. For cases where Vipac predicts that a location would not meet its appropriate comfort criterion we may recommend the use of wind control devices and/or local building geometry modifications to achieve the desired comfort rating. For complex flow scenarios or where predicted flow conditions are well in excess of the recommended criteria, Vipac recommends scale model wind tunnel testing to determine the type and scope of the wind control measures required to achieve acceptable wind conditions.

2.1 SITE EXPOSURE

The proposed development site is located in Hyde Park, south of the Adelaide CBD. The surrounding developments (within 2000 m radius) are low rise developments and residential dwellings in all directions.

Therefore, for the current study, the exposure of the site is considered to be Terrain Category 3 for all wind directions [1] (see Figure 3).

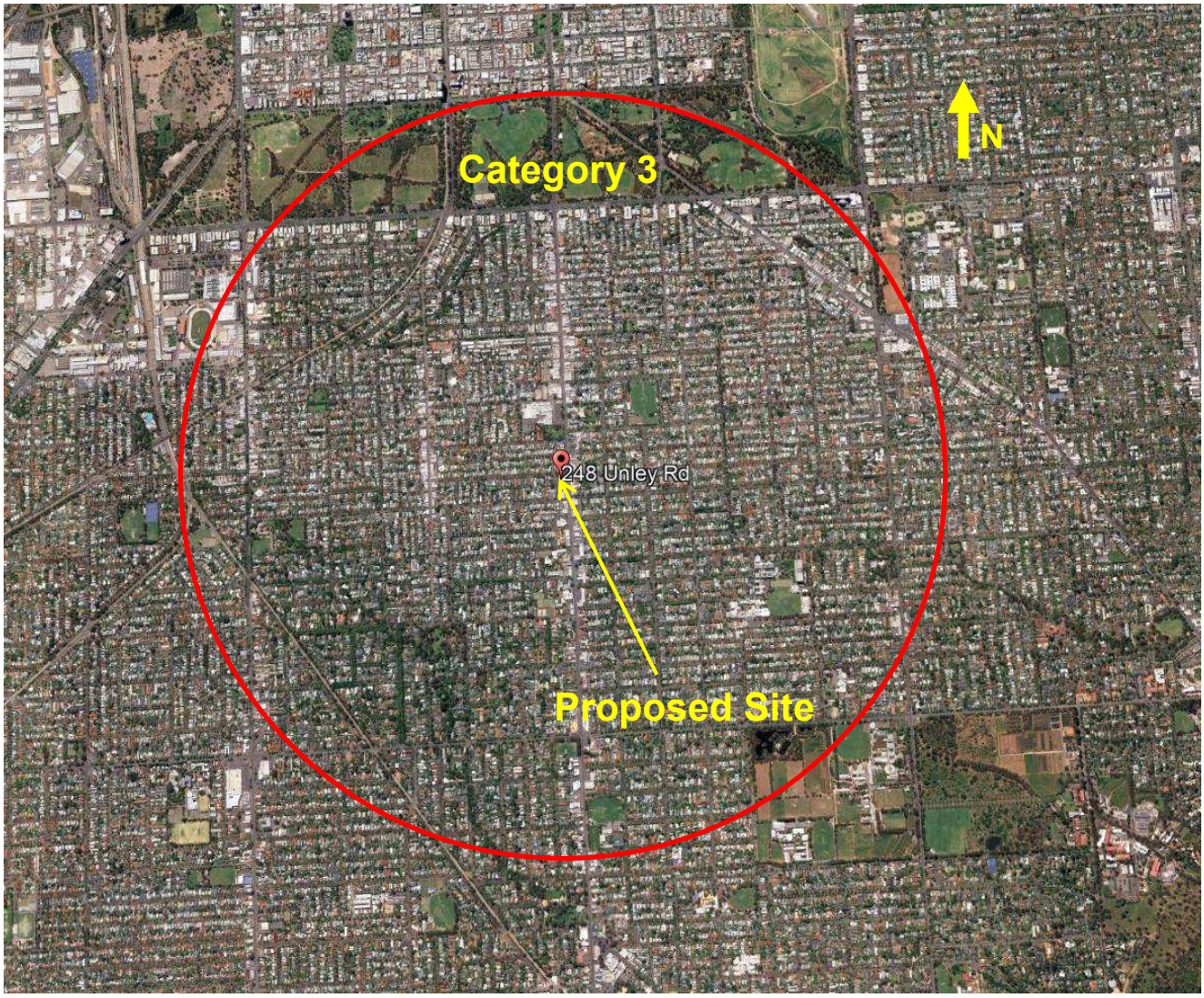


Figure 3: Assumed terrain categories for wind speed estimation.

2.2 REGIONAL WIND CLIMATE

The mean and gust wind speeds have been recorded in the Adelaide area for 30 years. These data have been analysed and the directional probability distribution of wind speeds have been determined. The directional distribution of hourly mean wind speed at the gradient height (≈500m), with a probability of occurring once per year (i.e. 1 year return period) is shown in Figure 4. The wind data at this free stream height are common to all Adelaide city sites and may be used as a reference to assess ground level wind conditions at the site. Figure 4 indicates that the stronger winds can be expected from the south-westerly, north-westerly and westerly directions.

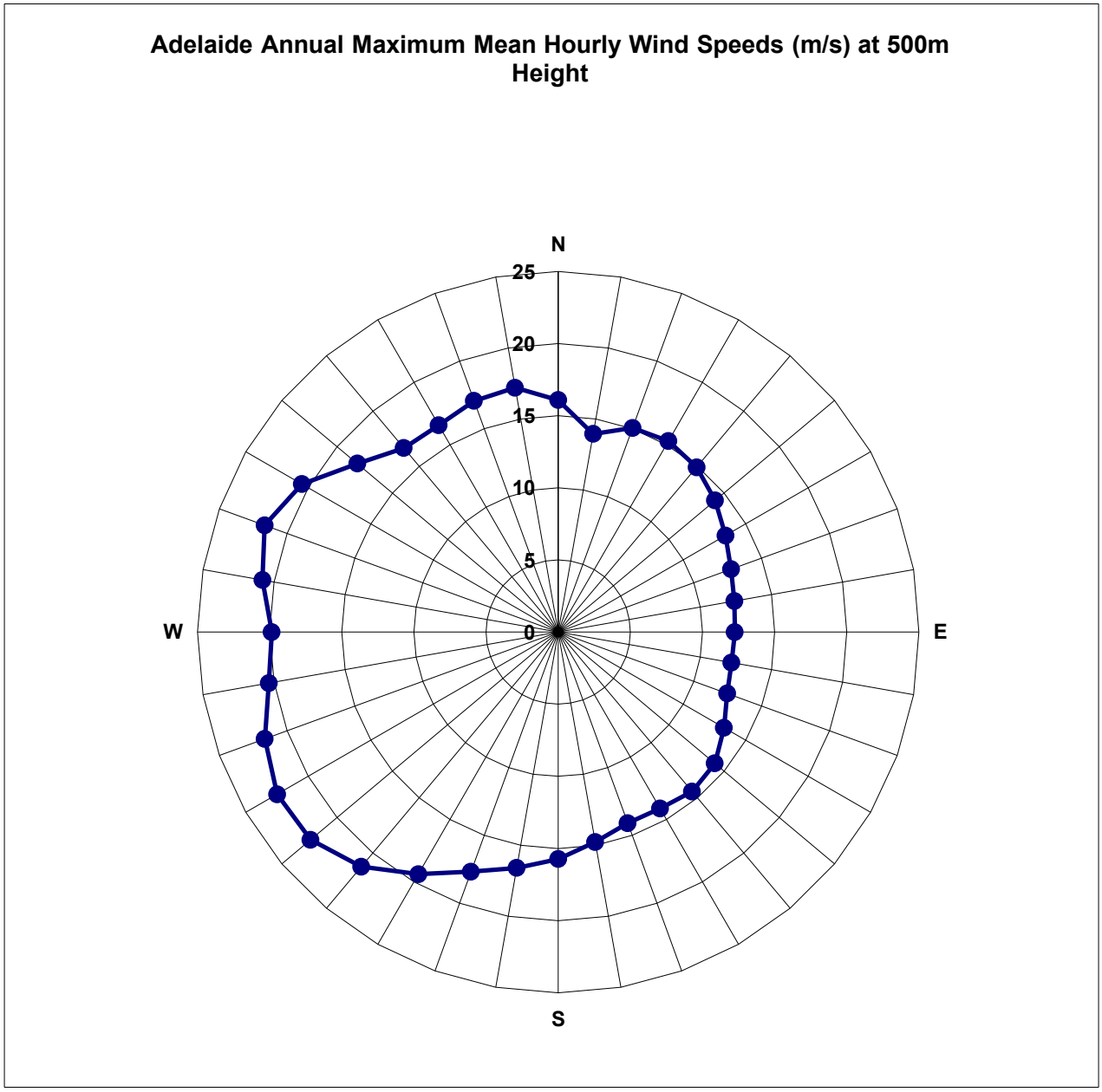


Figure 4: Directional Distribution of Annual Return Period Maximum Mean Hourly Wind Velocities (m/s) at gradient height of 500m in Adelaide.

2.3 SITE GEOMETRY AND ORIENTATION

The proposed development site is located on the north west corner of Unley Road and Opey Avenue and orientated in the east-west direction. This proposed development consists of three separate developments: mid-rise apartments and two blocks of townhouses. The approximate dimensions of the apartment complex is 39 m x 57 m and the two townhouse blocks are approximately 14 m x 18 m as shown in Figure 5.

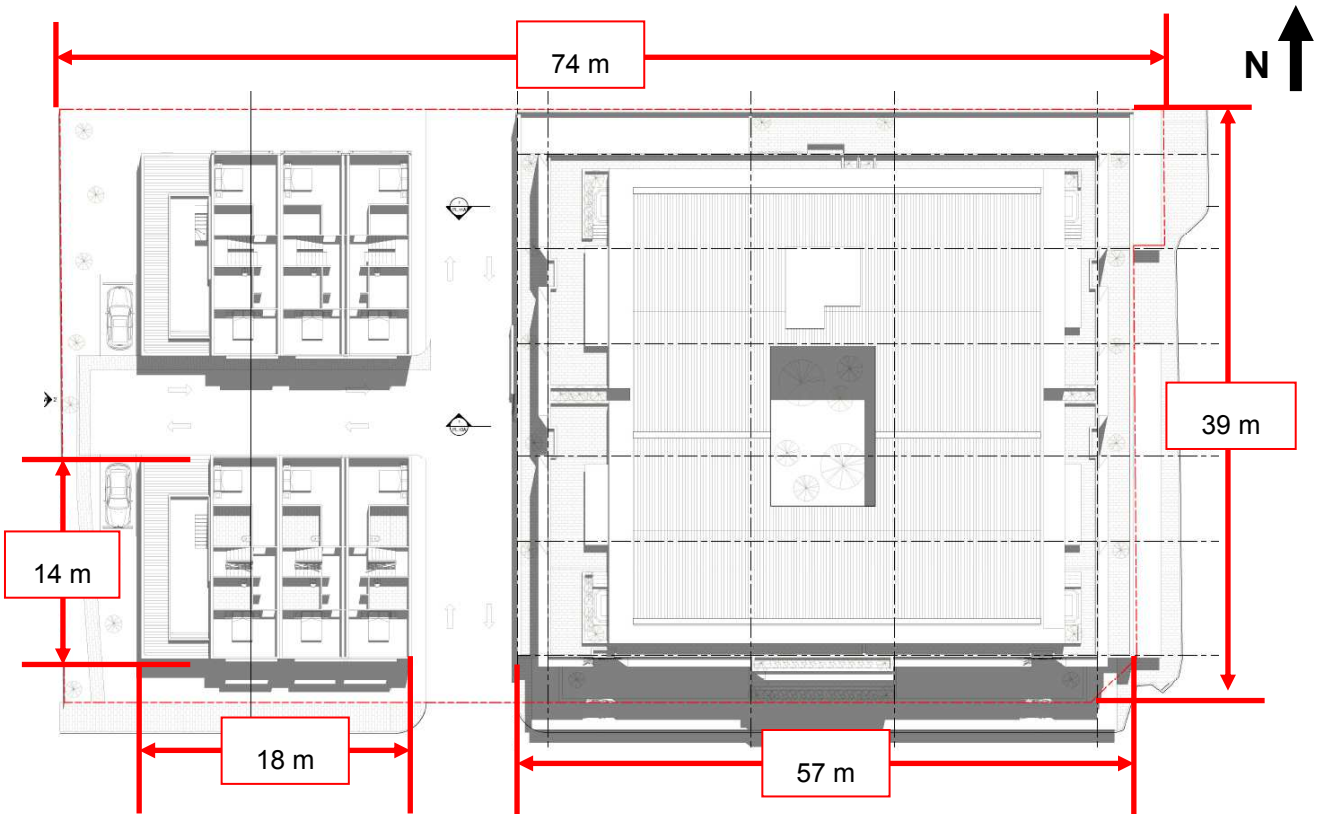


Figure 5: Existing ground floor plan of 248 Unley Road, Hyde Park, South Australia

2.4 FLOW INTERACTIONS WITH ADJACENT DEVELOPMENTS

The buildings immediately adjacent to the development site, with their approximate height in metres, are shown in Figure 6.

The site is predominately surrounded by approximately 5-8 m buildings, with an approved future 24 m apartment complex immediately to the north.

As such, the proposed design would be well shielded at ground level. However, the rooftop terraces will be above the shielding influence of the surrounding buildings.

Figure 6: Immediately adjacent buildings and their approximate height in meters (m).

2.5 ASSESSMENT CRITERIA

With some consensus of international opinion, pedestrian wind comfort is rated according to the suitability of certain activities at a site in relation to the expected annual peak 3-second gust velocity at that location for each wind direction. Each of the major areas around the site are characterized by the annual maximum gust wind speeds. Most patrons would consider a site generally unacceptable for its intended use if it were probable that during one annual wind event, a peak 3-second gust occurs which exceeds the established comfort threshold velocity (shown in Table 1). If that threshold is exceeded once per year then it is also likely that during moderate winds, noticeably unpleasant wind conditions would result, and the windiness of the location would be considered as unacceptable.

Table 1: Recommended Wind Comfort and Safety Gust Criteria

Annual Maximum Gust Speed	**Result on Perceived Pedestrian Comfort**
>23m/s	Unsafe (frail pedestrians knocked over)
<20m/s	Acceptable for **fast walking** (waterfront or particular walking areas)
<16m/s	Acceptable for **walking** (steady steps for most pedestrians)
<13m/s	Acceptable for **standing** (window shopping, vehicle drop off, queuing)
<11m/s	Acceptable for **sitting** (outdoor cafés, gardens, park benches)

In a similar manner, a set of hourly mean velocity criteria (see Table 2) with a 0.1% probability of occurrence are also applicable to ground level areas in and adjacent to the proposed development. An area should be within both the relevant mean and gust limits in order to satisfy the particular human comfort and safety criteria in question.

Table 2: Recommended Wind Comfort and Safety Mean Criteria

Mean wind speed exceeded 0.1% of the time	**Result on Perceived Pedestrian Comfort**
>15m/s	Unsafe (frail pedestrians knocked over)
<13m/s	Acceptable for **fast walking** (waterfront or particular walking areas)
<10m/s	Acceptable for **walking** (steady steps for most pedestrians)
<7m/s	Acceptable for **standing** (window shopping, vehicle drop off, queuing)
<5m/s	Acceptable for **sitting** (outdoor cafés, gardens, park benches)

Recommended Criteria

The following table lists the specific areas adjacent to the development and the corresponding recommended criteria.

Table 3: Recommended application of criteria

Area	Specific Location	Recommended Criteria
Footpaths	Along Unley Road, Opey Avenue as well as throughout the proposed carpark and driveways (Figure 7)	Walking
Building Entrances	Entrances to buildings on Opey Avenue and the main Plaza (Figure 7)	Standing
Outdoor Amenity Areas	Communal Terrace on Level 2 (Figure 8)	Walking (See discussion below)

Buidling Balcony/Terraces Recommended Criterion:

Vipac recommends that the balcony/terrace communal areas meet the criterion of walking as:

- These areas are not public spaces;
- The use of these areas are optional
- Many similar developments in Adealide and other Australia capitcal cities exepreince wind conditions on balconies and elevated deck areas in the vicinity of the criterion for walking.

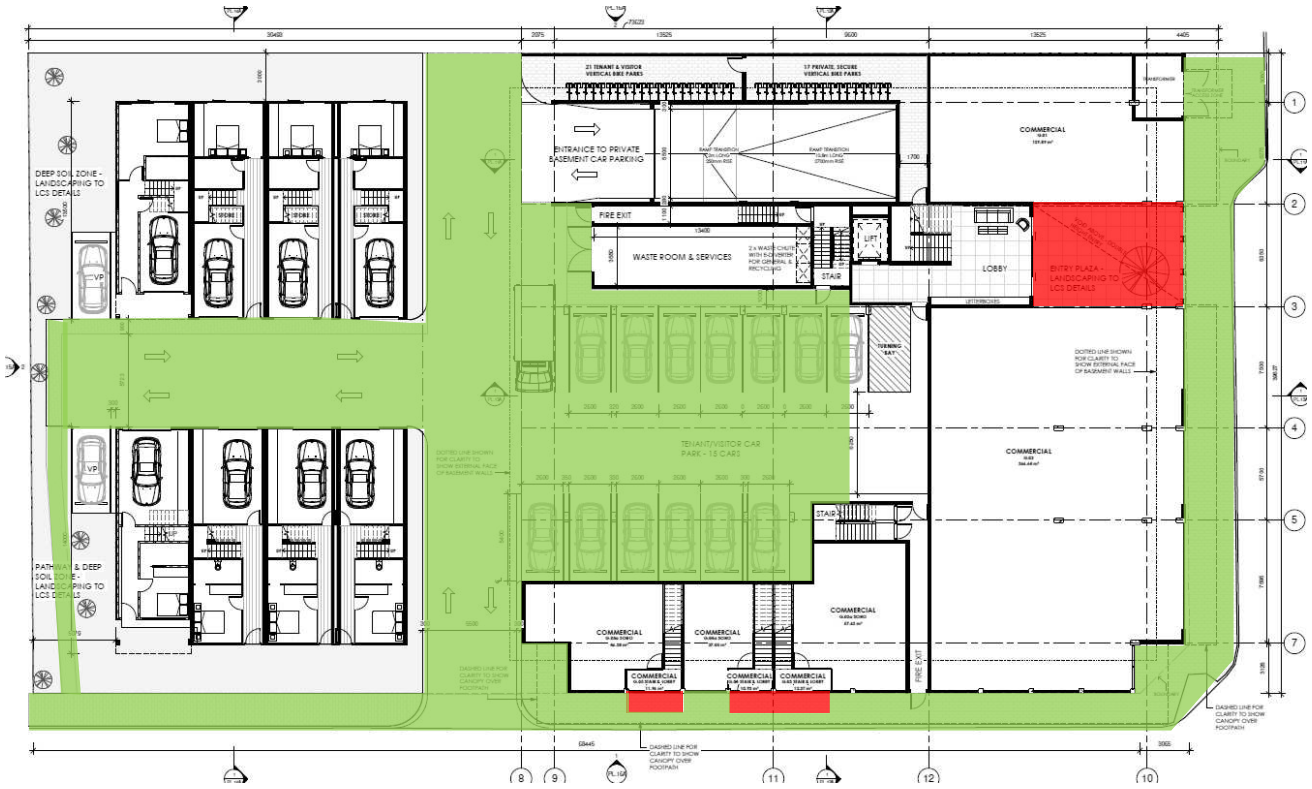


Figure 7: Ground level Plan view of the proposed development with recommended wind criteria overlaid

Recommended to fulfil Walking

Figure 8: Level 02 Plan view of the proposed development with recommended wind criteria overlaid

3 PEDESTRIAN LEVEL WIND EFFECTS AND RECOMMENDATIONS

There are some features incorporated into the proposed design which are beneficial to a comfortable wind environment, such as:

- Extensive Landscaping such as trees and planters in the outdoor space,
- Setback building entries and airlocks
- Canopy above southern and eastern footpaths.

Ground Level

The proposed development is surrounded by existing low-rise buildings in all directions. The proposed 24 m high apartment complex immediately north of the site is expected to provide shielding. Direct winds approaching from these direction are not expected to result in wind conditions in excess of the criterion for walking on the ground level.

Downwash winds are expected to be mitigated by the proposed canopies along the southern and eastern facades. Therefore, along with the airlocks and setbacks, the entrances into the plaza and the commercial tenancies are expected to be within the recommended standing criterion.

Westerly winds are expected to be the main contributing factors to the wind environment in the street due to the wind magnitude and channelling effects. Corner acceleration is also expected to result in some elevated wind levels at the Unley Road and Opey Avenue corner. However, the setback corner, and setback nature of the tower is expected to be beneficial in mitigating these adverse winds. Therefore it is expected that the pedestrian footpaths around the proposed development to be within the recommended walking criterion.

Wind levels in all footpath areas along the proposed townhouses to the west are expected to be within the recommended walking criterion. Direct winds are not expected to be a contributing factor, nor is corner accelerating winds due to the townhouses height in comparison with the surrounding environment. Downwash winds from the western façade of the adjacent apartment complex are expected to produce elevated wind conditions; however, the expansive carpark void underneath the apartment development is expected to negate these adverse effects. Therefore, the wind conditions in and around the townhouses are expected to be within the walking criterion.

Communal Plaza

The communal plaza on the second floor of the apartment complex is shielded in all directions by the proposed development. Landscaping is also is proposed for this area. Therefore this area is not expected to experience adverse wind conditions, and thus expected to be within the recommended walking criterion, and will likely meet the more stringent standing or sitting comfort criteria.

3.1 RECOMMENDATIONS

Vipac has carefully considered the wind conditions of the proposed development and predicts that ground level pedestrian areas adjacent to the development would not experience wind conditions in excess of the standing criterion at the main building entrances. The wind environment would be expected to meet the recommended criterion for walking for adjacent footpaths on the ground level and communal terraces on the 2nd floor. As such, Vipac makes no recommendations for alteration of the proposed design.

As a general statement, educating occupants about wind conditions at high-level balconies and terrace areas during high-wind events ad tying down loose lightweight furniture are also highly recommended.

4 CONCLUSIONS

An appraisal of the likely wind conditions for the proposed redevelopment of 248 Unley Road, Hyde Park in South Australia has been made.

Vipac has carefully considered the design and exposure of the proposed redevelopment, nominated criteria for various public areas according to their function and referred to past experience to produce our opinion of likely wind conditions. Base on this assessment, the following conclusions are drawn:

- With proposed design the redevelopment would be expected to have wind conditions in the footpath areas within the walking criterion;
- With the proposed design, the entrances would be expected to have wind conditions within the recommended standing comfort criterion;
- With the proposed design, the communal terraces on Level 2 would be expected to have wind conditions within the recommended walking comfort criterion, and would likely also achieve the more stringent standing or sitting comfort criteria

The assessments provided in this report have been made based on experience of similar situations in Adelaide and around the world. As with any opinion, it is possible that an assessment of wind effects based on experience and without experimental validation may not account for complex flow interactions in the vicinity. Vipac recommends a scaled wind tunnel study in the detail design stage to verify the predictions and determine the optimal wind controls wherever necessary.

This Report has been Prepared

For

Citify & BFC Pty Ltd

By

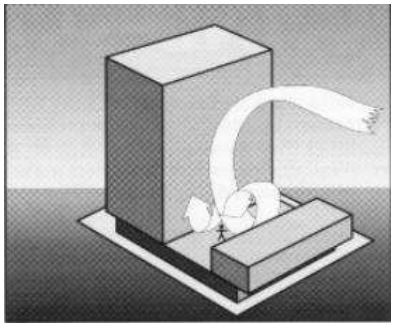
VIPAC ENGINEERS & SCIENTISTS PTY LTD

Appendix A: ENVIRONMENTAL WIND EFFECTS

Atmospheric Boundary Layer

As wind flows over the earth it encounters various roughness elements and terrain such as water, forests, houses and buildings. To varying degrees, these elements reduce the mean wind speed at low elevations and increase air turbulence. The wind above these obstructions travels with attenuated velocity, driven by atmospheric pressure gradients. The resultant increase in wind speed with height above ground is known as a wind velocity profile. When this wind profile encounters a tall building, some of the fast moving wind at upper elevations is diverted down to ground level resulting in local adverse wind effects.

The terminology used to describe the wind flow patterns around the proposed Development is based on the aerodynamic mechanism, direction and nature of the wind flow.

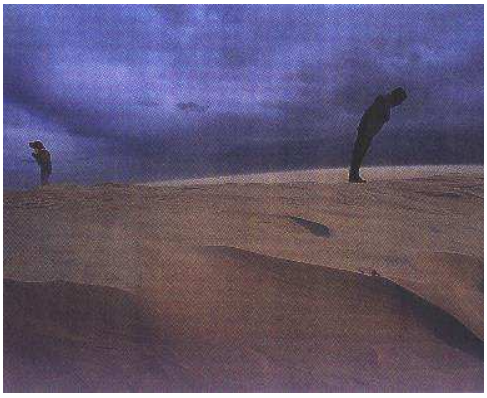


Downwash – refers to a flow of air down the exposed face of a tower. A tall tower can deflect a fast moving wind at higher elevations downwards.

Corner Accelerations – when wind flows around the corner of a building it tends to accelerate in a similar manner to airflow over the top of an aeroplane wing.

Flow separation – when wind flowing along a surface suddenly detaches from that surface and the resultant energy dissipation produces increased turbulence in the flow. Flow separation at a building corner or at a solid screen can result in gusty conditions.

Flow channelling – the well-known “street canyon” effect occurs when a large volume of air is funnelled through a constricted pathway. To maintain flow continuity the wind must speed up as it passes through the constriction. Examples of this might occur between two towers, in a narrowing street or under a bridge.



Direct Exposure – a location with little upstream shielding for a wind direction of interest. The location will be exposed to the unabated mean wind and gust velocity. Piers and open water frontage may have such exposure.

Appendix B: REFERENCES

[1] *Structural Design Actions, Part 2: Wind Actions*, Australian/New Zealand Standard 1170.2:2011

[2] *Wind Effects on Structures* E. Simiu, R Scanlan, Publisher: Wiley-Interscience

[3] *Architectural Aerodynamics* R. Aynsley, W. Melbourne, B. Vickery, Publisher: Applied Science Publishers

Appendix C: DRAWING LIST

Drawings Received: 2018 – 01 - 18

SHEET LIST		
SHEET #	SHEET NAME	REVISION
PL.03A	Ground Floor	A
PL.04A	Basement	A
PL.05A	Lower Basement	A
PL.06A	First Floor	A
PL.07A	Second Floor	A
PL.08A	Third to Fifth Floor	A
PL.09A	Sixth Floor	A
PL.10A	Roof Plan	A
PL.11A	Design Sections	A
PL.12A	Design Sections	A
PL.13A	Design Sections	A
PL.15A	Elevations	A
PL.16A	Elevations	A

LUCID
CONSULTING AUSTRALIA

248 UNLEY ROAD, HYDE PARK

Sustainability Report rev B

Date: 9 April 2018

Document Number: LCE14462-004

DOCUMENT ISSUE REGISTER

PROJECT NAME: 248 UNLEY ROAD, HYDE PARK,

PROJECT REF: LCE14462-004 Sustainability Report

REVISION	DESCRIPTION	DATE ISSUED	AUTHOR	REVIEWED
A	SCAP submission	14.03.2018	YP	PL
B	SCAP submission	09.04.2018	AG	PL

CONTENTS

1. INTRODUCTION

This report provides a list of Ecologically Sustainable Design (ESD) initiatives that are proposed for the development.

The intent of each initiative is to add value to the project by improving the ecological performance of the development whilst reducing operational expenses for the building owner, tenants, and residents. Collectively, these initiatives will: -

- Reduce energy and water consumption;
- Reduce the ecological footprint of the building and its occupants;
- Improve thermal comfort and air quality within the building; and
- Improve occupant well-being with high quality naturally illuminated internal spaces.

1.1 OVERVIEW

The proposed development is located at 248 Unley Road, Hyde Park, South Australia.

The proposed development can be summarised by the following:

- 6x townhouses with private garages at ground level.
- Mixed retail/commercial tenancies at Ground floor and part of Level 1.
- 65 apartments from Level 1 to Level 6 surrounding a central shared courtyard and light well.
  - 12x Studios apartments
  - 3x 1 Bedroom apartments
  - 27x 2 Bedroom apartments
  - 23x 3 bedroom apartments
- Visitor car parking at Ground floor.
- 2 level basement dedicated to private occupant and tenancy carparking.

Street front elevation from Unley Road.

2. ECOLOGICALLY SUSTAINABLE DESIGN

The following ESD initiatives are proposed. These are proposed based on the preliminary architectural documentation received 19 February 2018.

2.1 High Performance Thermal Envelope

The building's thermal envelope contributes a significant portion to the air-conditioning energy required to maintain a comfortable environment for occupants. Therefore, this building is targeting a higher performing thermal envelope to assist improve the NatHERS rating above 5 star per apartment and 6 star average which is required in accordance with the 2016 National Construction Code Section J minimum requirements. The following elements of the thermal envelope will be specifically targeted:

- High performance building envelope; wall, floor and roof insulation R-values to meet best practice guidelines.
- High performance glazing selected (double glazing proposed) with consideration of building-specific features and climatic conditions.
- Additional shading to reduce the summer cooling load. Therefore, reducing energy consumption require to maintain thermal comfort within the occupied apartment.

2.2 Sustainable Building Materials

Sustainable building materials to be maximised throughout this project. The following criteria will be used:

- Low Volatile Organic Compounds (VOC).
- Low formaldehyde emissions.

2.3 Energy Efficient Air Conditioning

Energy efficient air conditioning units exceeding Minimum Energy Performance Standards (MEPS).

2.4 Natural ventilation

Each apartment has been provided with a cross flow ventilation pathway that directly opens to outside. This includes via the living space and bedrooms. Effective natural ventilation as described above results in two key benefits:

- Improved indoor air quality through provision of higher quantities of outside air.
- Reduced demand for mechanical air conditioning in summer and mid-season.

Natural ventilation cross flow for typical apartment.

2.5 Daylighting

Daylight penetration is maximised to central common courtyard via the open atrium. Privacy to tenants is provided with window sill heights above floor level and obscure glazing to all windows in atrium.

2.6 LED Lighting

LED lighting will be maximised throughout the building.

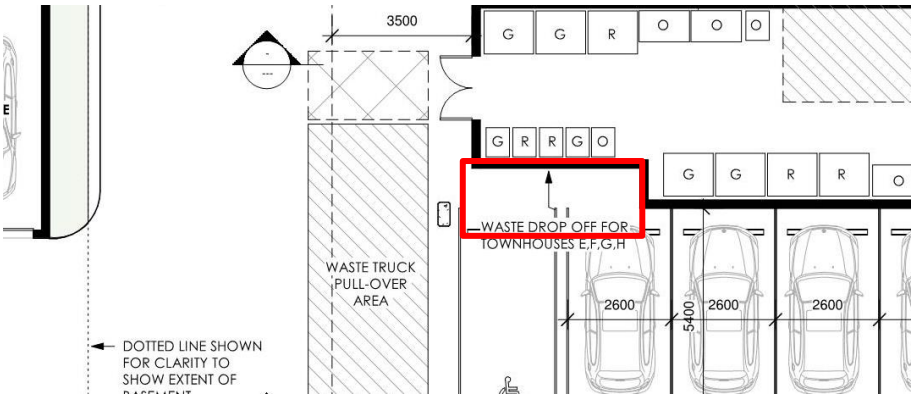
2.7 Water Efficient Fixtures

All water fixtures and fittings shall be proposed as low-flow where possible. The following WELS ratings are proposed:

- Taps with a WELS rating of not less than 5 Stars (6.0 L/min)
- Shower heads with a WELS rating of not less than 3 Stars (9.0 L/min)
- Water closets with a WELS rating of not less than 4 Stars (3.5 L/flush, dual flush)

2.8 Rain Water Harvesting

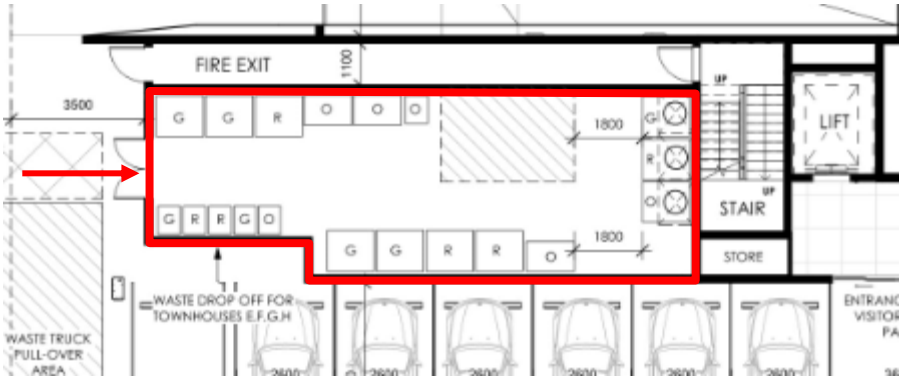
Rainwater harvesting is proposed to serve landscape irrigation, offsetting potable water usage. Rainwater harvesting pump and tank system is proposed to be located on the ground floor.



Rainwater harvesting tank and pump location.

2.9 Waste Management

The bin storage room located at ground floor is proposed with direct access to the rear central access road where waste truck can pull over to empty the bin contents into the truck. The bin room also comprises the termination point of three bin chutes which assist separating waste streams. The waste chute can be accessed at each level.

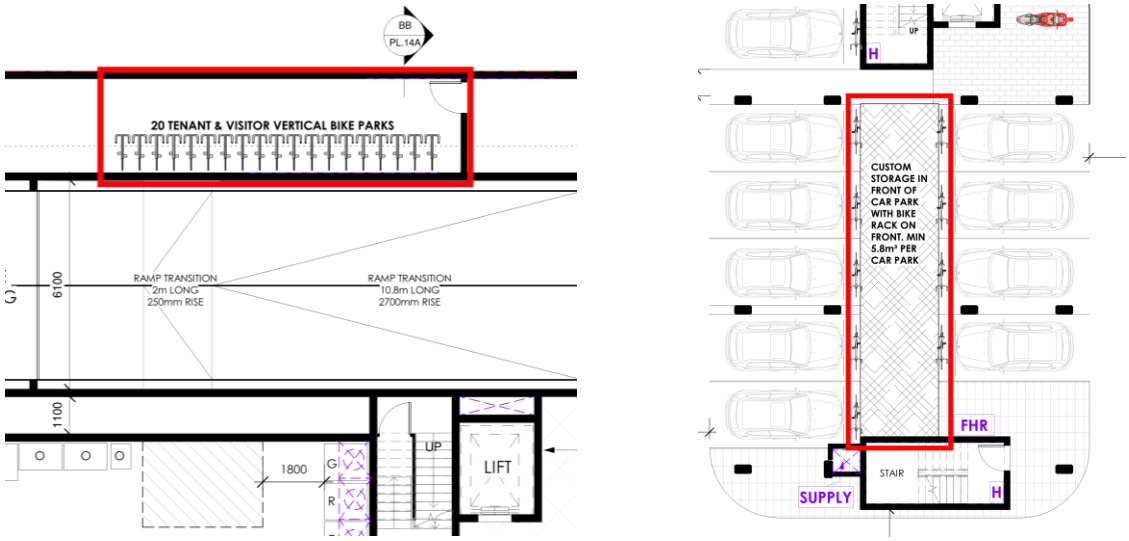


Bin storage area.

2.10 Sustainable Transport

Bicycle facilities are provided to encourage building occupants to use a sustainable form of transport. Specific bicycle facilities include:

- Secure bicycle storage racks for residents.
- Bicycle storage racks for visitors.
- Accessible directly via main entrance lobby.



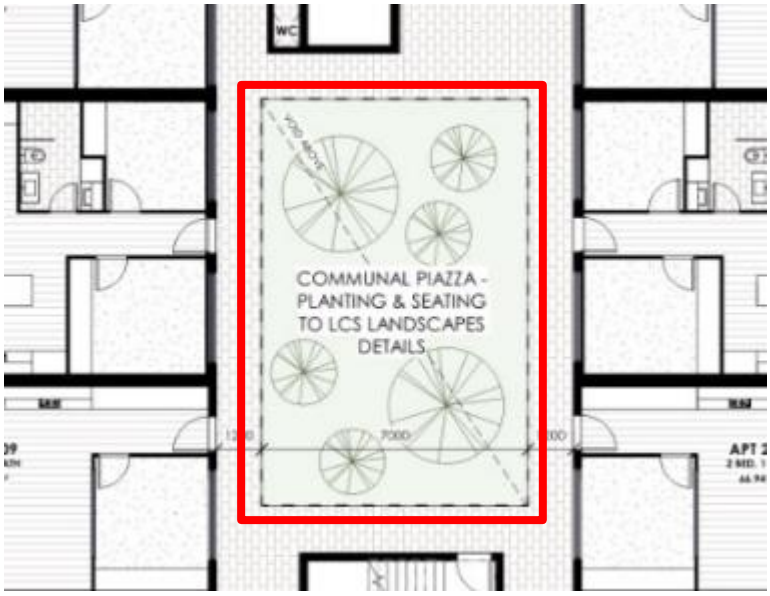
Bicycle storage facilities.

2.11 Private and shared outdoor space

All apartments are provided with a private outdoor space in the form of a balcony. Some townhouses additionally have a roof garden area.

All apartments from Level 2 to Level 6 surround a central shared courtyard which is landscaped with seating areas.

The benefit of private and shared outdoor spaces include social and health benefits.



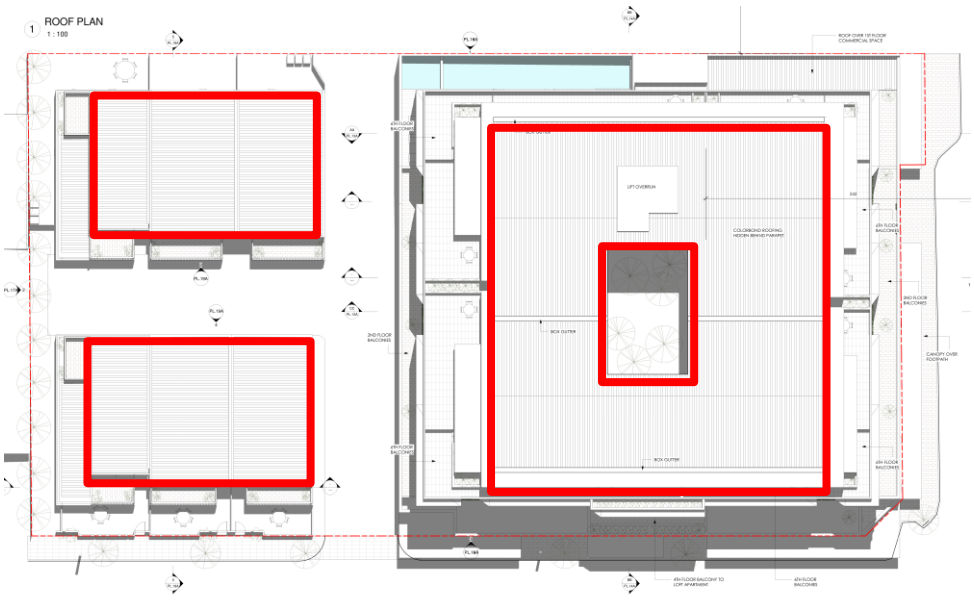
Shared central courtyard for occupants.

2.12 On-Site Renewable Energy Generation and Storage

Roof mounted solar photovoltaic (PV) system will be considered to reduce electricity costs for the building owner and potentially the tenants and residents. This initiative is proposed to generate renewable energy on-site, offsetting electrical energy imported from the grid which has a higher Greenhouse Gas emissions factor.

Battery energy storage system will also be considered for shifting solar energy generation yield to avoid export.

The usable roof area will have to be coordinated with any roof mounted equipment.



Usable area when considering roof mounted solar PV array.

CHRIS SALE
consulting

17th April 2018

Attention: To whom it may concern

248 Unley Road Hyde Park

Under instruction from the applicant, Mr Joel Wilkinson we have reviewed the drawings PL.00 - PL.19 received 6 April 2018 for the construction of a multistorey building including basement car parking at the above named site. It is our opinion that the construction cost for the **shell** of the building would be in the order of $9,500,000.

We have based this indicative budget estimate on similar projects of similar design and material selections. This indicative budget estimate has been prepared for the sole purpose of council application for development approval and should not be used for any other purposes.

We note that the indicative budget estimate may vary subject due to the following:

- Design Development
- Detailed Structural Design
- Material Selections (Local versus Imported)
- Procurement or contract system
- Site Conditions / Latent Conditions
- Quality of Finishes

We also note that our indicative budget estimate excludes:

- Demolition
- Land Value
- Professional Fees
- Internal Fitout/ Finishes
- Building Services
- Authority Fees & Charges
- Preliminaries & Margin
- Escalation beyond October 2017
- Goods & Services Tax

We trust this is sufficient for your immediate requirements. Should you have any queries or require further information please do not hesitate to call.

Yours sincerely

Cameron Flentje
Senior Cost Manager
Chris Sale Consulting Pty Ltd

OFFICE FOR DESIGN + ARCHITECTURE SA

File No:
2014/11235/01

Ref No:
12804136

18 June 2018

Mr Karl Woehle
Planning Officer - CBD & Inner Metro Team
Strategic Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
Adelaide SA 5000

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For the attention of the State Commission Assessment Panel

248 Unley Road, Hyde Park

Further to the referral 090/M005/18 received 7 May 2018 pertaining to the development application at the above address and in my capacity as a statutory referral in the State Commission Assessment Panel, I would like to offer the following comments for your consideration.

The project was not presented to the Design Review panel, however from considering the material supplied with the referral and evaluating the design merit of the project I am pleased to offer my in principle support to the planning application. My support is contingent on review of some apartment layouts to ensure high quality residential amenity for all dwellings.

The subject site, of approximately 2,850 square metres, is located on the north corner of Unley Road and Opey Avenue. Unley Road is currently characterised by one and two storey retail and commercial tenancies, however the site is within the Urban Corridor Zone, High Street (Unley Road) Policy Area, which envisages developments up to five storeys and 18.5 metres. There are a number of Local heritage places in the site's proximity, including the single storey Unley Institute and Library building immediately opposite on Unley Road. The existing building on the subject site physically abuts a single storey retail building to the north, which is proposed to be replaced with a recently approved seven storey mixed-use development. To the west, the subject site adjoins the boundary to the Residential Streetscape (built form) Zone, Compact (Built Form) Precinct 8.5 Policy Area, which envisages a single storey built form to the streetscape with integrated second storey building elements.

The proposal includes a seven storey building on Unley Road with an overall above ground height of 24.55 metres, which is significantly above the maximum envisaged height of five storeys and 18.5 metres for the site. While I am concerned about the departure from the envisaged future character of the area, I support the proposed height on balance, as the proposal includes two storey townhouse built forms along

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Government of South Australia

File No:
2014/11235/01

Ref No:
12804136

the western boundary that provide a positive transition with the existing residential properties. I also acknowledge that a proposal of a similar scale (26.8 metres above ground) has recently received Development Plan Consent on the adjoining site to the north at 244-246 Unley Road.

The proposed seven storey building includes a two storey podium that extends to the north, south and east boundaries with minor exceptions. Levels two to five are set back on all sides with the intent to define the podium form from the built form above. I support the provision of the podium and its height that is consistent with the height of the podium of the adjoining proposed development. The top apartment floor is further set back with the intent to reduce the visual impact, which I also support.

I support the height and massing of the townhouse buildings, as the built forms address the 30 degree building envelope requirement and provide a transitional built form to manage interface issues with the adjoining residential zone.

I support the provision of retail and commercial tenancies on the ground floor of the mixed-use building along the Unley Road and Opey Avenue frontages to sleeve the at grade car parking with active use spaces. I also strongly support the provision of an outdoor dining area within the site boundary and consolidation of driveways to Opey Avenue, both contributing towards activation of the public realm. The provision of the transformer on the secondary street frontage and incorporation of the service infrastructure to the built form is also supported.

While I have concerns regarding the quality of the laneway area between the two clusters of townhouses, I support the proposed arrangement on balance. In my opinion, the configuration affords north facing outdoor spaces for the northern townhouses and optimises the proposal's presentation to Opey Avenue. I also note that the length of the laneway is not extensive. The provision of a through-site vehicle way is also supported, as it potentially creates a consolidated vehicular link between Hart and Opey Avenues as envisaged by the Development Plan.

The apartment entry is provided through a recessed plaza off Unley Road. I support the generous width of the entry plaza and the provision of a coffee bar within the entry lobby to optimise activation.

For the mixed use building, I support the masonry character of the podium, achieved by stone tiles. I also support the residential entry expressed as a double height volume, which provides a clear sense of address on the primary Unley Road frontage. The architectural expression for the built form above the podium is characterised by a series of light coloured rectangular projecting frames articulated by the darker coloured recesses in between. I support the general intent to address the scale of the building by providing a breakdown in built form, and I am of the view that the articulation on the east and west elevations successfully mitigates the visual bulk. However I am yet to be convinced by the Opey Avenue elevation that includes less physical and visual articulation. My concern for the southern elevation and its lack of breakdown in scale is further emphasised by the narrowness of Opey Avenue and the established small scale residential character of the street. I recommend review of the Opey Avenue facade expression, with the view to mitigate visual impact of the building scale, informed by the fine grain character of side

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streets. The top apartment floor is set back and treated in a darker colour to reduce the visual impact, which I support.

The submitted documentation does not specify the finish for the concrete walls above the mixed-use building podium. Generally, I do not support the use of painted and/or applied finishes for buildings of this scale, as they present challenges for durability, longevity and ease of maintenance. I request confirmation of concrete finishes, with the view to provide a high quality material commensurate with the project ambition, with finish and colour integral to its fabric.

The mixed use building includes climbing plants over the recessed sections of the walls on the east, west and south elevations, as a key part of the architectural expression. While I do not object to the provision of vertical greening on the building, I encourage a continuing collaboration with the landscape architect during the next phase of design development to resolve all technical requirements and ensure the proposed landscape elements can be successfully sustained and maintained.

I support the architectural expression of the townhouses, as in my opinion it responds to the established scale and character of the residential area, while remaining to be coherent with the larger building.

On the first floor of the mixed use building, 12 studio apartments, two two-bedroom apartments and one three-bedroom apartment are proposed. I am concerned about the depth of the open plan space of the studio apartments (Type H), where the rear of the dining area is approximately 9.5 metres from the only window and the kitchen area has no access to natural light. I also have concerns regarding the compromised amenity of the inboard bedroom in the two bedroom apartments (Type E). I recommend review of the apartment layouts on this floor to ensure quality access to natural light and ventilation to all habitable rooms.

On levels two to six, the apartments are positioned on edges of the rectangular floor plates around the central atrium above the communal plaza on the second floor. The atrium is approximately ten metres by 6.6 metres, spanning over five floors and is open to the sky. While I am concerned that the proposed configuration has contributed to the large footprint and the massing of the building, I support the layout on balance as it includes a variety of landscape elements in communal areas that can offer high quality residential amenity. My ongoing support is contingent on the resolution of the design details to ensure the full delivery of all the landscape ambitions within the communal spaces during the upcoming phases of design development, including effective stormwater drainage.

Generally, I support the mix of apartment types proposed. While the apartments are convincing in terms of size and functional layouts, I do not support the provision of bedroom windows to communal circulation spaces for natural light and ventilation. I am of the view that this arrangement compromises acoustic privacy and amenity of the apartments. I am also concerned about the depth of the open plan living/dining/kitchen space for the Type F apartments. I recommend review of the apartment layouts to ensure a high level of residential amenity for all habitable rooms.

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I generally do not support the location of air-conditioning condenser units on balconies, due to adverse impacts on the amenity of that space and the street. However in this instance, I support the proposed arrangement on balance, as the majority of the condenser units are located within the integrated outdoor furniture. I recommend development of an integrated screening solution for the stand-alone condensers, to ensure environmental and acoustic amenity of all balconies.

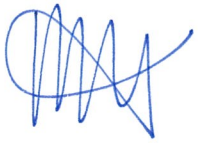
I support the internal planning of the townhouses that offer access to natural light and ventilation, and usable private open spaces.

I support the provision of the communal spaces at the top of the mixed-use building podium, including a pool, barbeque area and games room. However I am concerned about the location of the pool and the associated deck area along the northern boundary. In my opinion, the amenity and usability of these spaces could be compromised, due to the proximity to the approved seven storey development on the adjacent land. The adjacent development includes south facing balconies that are likely to pose overlooking issues to the pool area. The direct solar access to the pool and deck area is also likely to be severely limited by the adjoining building to the north. I recommend review of the communal space strategy to ensure optimum user amenity, including solar access.

To ensure the most successful design outcome is achieved the State Commission Assessment Panel (SCAP) may like to consider particular aspects of the project, which would benefit from protection as part of the planning permission, such as:

- Review of articulation to the Opey Avenue elevation with the view to mitigate visual impact of the built form bulk.
- Confirmation of concrete finishes, with the view to provide a high quality material with finish and colour integral to its fabric.
- Review of the apartment layout on the first floor to eliminate inboard bedrooms.
- Review of apartment layouts to ensure a high level of residential amenity for all habitable rooms.
- Development of an integrated screening solution for the stand-alone air conditioning condensers on balconies.
- Review of the communal space strategy to ensure optimum user amenity, including solar access.

Yours sincerely



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Government of South Australia

Woehle, Karl (DPTI)

From: Shirai-Doull, Aya (DPTI)
Sent: Wednesday, 1 August 2018 9:46 AM
To: Woehle, Karl (DPTI)
Subject: RE: 248 Unley Road, Hyde Park - Response to referral

Karl,

This is email is in response to the email and revised drawings forwarded on 30 July 2018 to address issues raised by the Government Architect's referral letter dated 18 June 2018.

Opey Avenue (south) elevation
I welcome and support the revised expression of the southern elevation to provide visual articulation and breakdown in scale.

Confirmation of concrete finishes
I support the proposed options for integrated finish (brightenlite/pigmented/stained) to the concrete walls.

Depth of open plan spaces (type H apartments) on the first floor
I have viewed the 360 degree rendering, while I support the residential amenity demonstrated for the main living area, I remain unconvinced about the dining space.
In my opinion, the solar access to the dining area is compromised due to its distance from the only source of solar access and the provision of the full-height joinery to separate the space from the rest of the living area.

Inboard bedrooms (type E apartments) on the first floor
I support the reconfiguration of Type E apartments to eliminate inboard bedrooms.

Depth of open plan spaces (type F apartments)
I welcome and support the revised layout to reduce the depth of the open kitchen/dining/living area and provide dual aspect.

Bedroom windows to communal circulation spaces
While I remain of the view that the provision of bedroom windows to communal spaces does not reflect good practice in apartment living, I acknowledge the proposed techniques to safeguard residential amenity, such as the increased window sill height and the provision of double glazing.

Screening of the air conditioning condenser units
I acknowledge the confirmation to integrate all air conditioning condenser units into outdoor furniture, unless they are located on consolidated areas on level two or the rooftop.
I recommend development of screening details during the upcoming phases of design and documentation to ensure mitigation of the environmental and acoustic impacts.

Communal space strategy – solar access and privacy of pool area
I support the enclosing of the communal pool and deck area to address privacy issues as well as providing year-round usability.

I also note the revised drawings includes a trellis with grape vine over the internal driveway between two clusters of townhouses.
I support the provision of soft landscaping to improve the visual amenity of laneway.

Overall, I support the changes proposed and thank the applicant for genuinely responding to the issues raised in the referral letter.
I also acknowledge the clarity of the submitted materials.
I am pleased to offer my support to the planning application.

Kind regards,

Aya Shirai-Doull on behalf of Kirsteen Mackay (South Australian Government Architect)

Aya Shirai-Doull
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Department of Planning, Transport and Infrastructure
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From: Woehle, Karl (DPTI)
Sent: Monday, 30 July 2018 10:09 AM
To: Shirai-Doull, Aya (DPTI) <Aya.Shirai-Doull@sa.gov.au>
Subject: 248 Unley Road, Hyde Park - Response to referral

Good morning AYA!!!!

The applicant (Future Urban) has responded to comments ODASA provided in the referral period for 248 Unley Road, Hyde Park.
I have attached the response document to this email and amended plans via dropbox link.

https://www.dropbox.com/sh/61ap5pwkgse95dr/AAAQ_zwWe8-JgRfdazD0OyJha?dl=0

Feel free to make further comment on the applicants response.
The development has been earmarked for a SCAP hearing on the 23 August 2018.

If you have any further questions please contact me.

Kind Regards,

Karl Woehle
Planning Officer - CBD & Inner Metro Team
Strategic Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure

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In reply please quote 2018/01926/01, *Process ID:* 516792
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Department of Planning, Transport and Infrastructure

DEVELOPMENT DIVISION
Transport Assessment and Policy Reform

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14/06/2018

Mr Karl Woehle
State Commission Assessment Panel
GPO Box 1815
ADELAIDE SA 5001

Dear Mr Woehle,

SCHEDULE 8 - REFERRAL RESPONSE

Development No.	090/M005/18
Applicant	Citify and BFC Pty Ltd C/- Future Urban Group
Location	248 Unley Road, Hyde Park
Proposal	Demolition of existing building structures. Construct six, two-storey residential dwellings and a seven-storey mixed use building containing five commercial tenancies, residential apartments, ancillary car parking and associated building work

I refer to the above development application forwarded to the Commissioner of Highways in accordance with Section 37 of the *Development Act 1993*. The proposed development involves development adjacent a main road as described above.

The following response is provided by the Department of Planning, Transport and Infrastructure (DPTI), on behalf of the Commissioner of Highways, in accordance with Section 37(4)(b) of the *Development Act 1993* and Schedule 8 of the *Development Regulations 2008*.

THE PROPOSAL

The application proposes to demolish all existing structures and construct six two-storey residential dwellings and a seven-storey mixed use building including parking and landscaping. DPTI has previously provided comments regarding a similar development upon adjoining Allotments 1, 2 and 3 within Deposited Plan 1221 (DA 090/M008/17).

CONSIDERATION

The subject site abuts Unley Road, an arterial road under the care control and management of the Commissioner of Highways, as well as Opey Avenue, a local road under the care, control and management of City of Unley. Unley Road is identified as a Major Cycling Route, High Activity Pedestrian Area, High Frequency Public Transport Corridor and Peak Hour Route under DPTI's *'A Functional Hierarchy for South Australia's Land Transport Network'*. At this location Unley Road carries approximately 26,100 vehicles per day (2.5% commercial vehicles).

Road Safety and Access

It is DPTI's policy to minimise the number of access points on the arterial road network in the interests of road safety. The subject site currently has one crossover to/from Unley Road and two crossovers via Opey Avenue. The application proposes to close the existing Unley Road crossover and gain all vehicular access via a single two-way access point to/from Opey Avenue. As this is consistent with DPTI's policy, the proposed arrangement is supported. The existing Unley Road crossover should be permanently closed and reinstated to Council's standard kerb and gutter at the applicant's expense.

Ground Floor Plan (Drawing PL.06A, Revision No. A dated 28/03/2018) shows that the development allows for a connection to be established between Hart Avenue and Opey Avenue, via the approved development to the north. This is supported but will need to be formalised via rights-of-way or similar as part of any future land division associated with the subject development. Furthermore, the final design of this internal north-south connection should ensure that connectivity is both safe and convenient for all users.

The Traffic and Parking Report produced by CIRQA dated 17 April 2018 supporting this application states that the anticipated traffic generation of the development (65 am peak hour trips and 73 pm peak hour trips) would not adversely impact on the Unley Road/Opey Avenue junction. Whilst DPTI considers that the additional traffic volumes are unlikely to significantly impact on the operation of Unley Road, queues on Opey Avenue, particularly those associated with the right turn out, are expected to increase.

Opey Avenue is a relatively narrow road. Accordingly, the presence of on-street parking along Opey Avenue has the potential to impact on two-way movements between the Unley Road/Opey Avenue junction and the site access, as well as the potential for service vehicles to safely access the site. Consequently, in order to ensure that simultaneous two-way vehicle movements are achievable along the subject section of Opey Avenue, on-street parking on both sides of the road should be banned between the Unley Road/Opey Avenue junction and the access to the site. These parking bans will need to be in place prior to completion of the development. It may also be necessary to enact these bans prior to the commencement of construction to ensure the safe movements of construction vehicles.

The CIRQA report also mentions that commercial vehicles up to 8.8 metres in length would be expected on-site. Turning profiles provided within the report show that sufficient area is available in order for 8.8 metres vehicles to conveniently manoeuvre on-site. Notwithstanding this, depending on the final design of the internal north-south connection it may be possible for service vehicles to circulate through both of the sites in a forward direction, thus potentially reducing the potential for vehicular conflict.

Road Widening

This site is affected by a requirement shown on the Metropolitan Adelaide Road Widening Plan for a 4.5 metres x 4.5 metres cut-off at the Unley Road/Opey Avenue corner for possible future road purposes. The consent of the Commissioner of Highways under the *Metropolitan Adelaide Road Widening Plan Act 1972* is required to all new building works located on or within 6.0 metres of the possible requirement. It is noted that the development provides a 3.0 metres x 3.0 metres corner cut-off at the ground floor level. This is acceptable to DPTI.

CONCLUSION

In-principle no objection is raised to the proposed development subject to the following conditions of approval being attached to any approval.

1. All built form (ground level, above and below ground level) shall be set back as shown on Gemma Lea plans:

   - Drawing PL.05A, Revision No. A dated 28/03/2018;
   - Drawing PL.06A, Revision No. A dated 28/03/2018; and
   - Drawing PL.07A, Revision No. A dated 28/03/2018;

2. A Traffic Management Plan for the construction period of the development shall be produced to the satisfaction of DPTI and Council prior to the commencement of construction. This plan shall detail the types, volumes and distributions of traffic and how they will be managed. All traffic movements shall be in accordance with this plan.

3. Any excavation adjacent to roads shall be designed and undertaken in a manner that does not impact on the structural stability or safety of the roads. Any damage to road assets caused by the development shall be repaired to the satisfaction of the relevant road authority at the applicant's cost.

4. All car parking and internal manoeuvring areas shall be in accordance with *AS/NZS 2890.1:2004* and *AS/NZS 2890.6:2009*.

5. All commercial vehicle facilities shall be designed in accordance with *AS 2890.2-2002*.

6. All redundant crossovers shall be permanently closed and reinstated to Council's standard kerb and gutter at the applicant's expense.

7. All materials and finishes shall not be permitted to result in glare or other effects that will result in the discomfort or impairment of road users.

8. Stormwater run-off shall be collected on-site and discharged without jeopardising the integrity and safety of the adjacent roads. Any alterations to the road drainage infrastructure required to facilitate this shall be at the applicant's cost.

The following note provides important information for the benefit of the applicant and is required to be included in any approval:

i. The site is affected by a requirement shown on the Metropolitan Adelaide Road Widening Plan for a 4.5 metres x 4.5 metres cut-off at the Unley Road/Opey Avenue corner for possible future road purposes. The consent of the Commissioner of Highways under the *Metropolitan Adelaide Road Widening Plan Act 1972* is required to all new building works located on or within 6.0 metres of the possible requirement.

As the development encroaches within the above areas, the applicant should fill out the attached form and return it to DPTI, along with three copies of the approved plans for consent purposes.

Yours sincerely,

per **MANAGER, TRANSPORT ASSESSMENT AND POLICY REFORM**

for **COMMISSIONER OF HIGHWAYS**

Encl: Consent Form

A copy of the decision notification form should be forwarded to dpti.developmentapplications@sa.gov.au

19 June 2018

The Secretary
State Commission Assessment Panel
GPO Box 1815
ADELAIDE SA 5001

Attention: Karl Woehle
Planning Officer - CBD & Inner Metro Team
Strategic Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure

Dear Commission

INFORMAL REFERRAL COMMENTS – DA 090/M005/18
248-252 UNLEY ROAD UNLEY

Thank you for the informal referral received on the 8 May 2018 of the above-mentioned application lodged with the State Commission Assessment Panel, and invitation for comment within 6 weeks (19 June 2018) to assist the assessment process.

The nature of development encompasses:

Demolition of existing building structures, removal of two significant and one regulated tree. Construct six, two storey residential dwellings and a seven storey mixed use building containing five commercial tenancies, residential apartments, landscaping, ancillary car parking and associated building work.

Council seeks to provide comment on designated Council matters, and observations on key local planning matters, that require further analysis and assessment by SCAP (State Commission Assessment Panel) in accord with the Heads of Agreement with the State Government in relation to such applications.

Proposed Comments Summary

Generally, the proposal is a positive and quality design for Unley Road and the site context. However, there are concerns with the degree of variation from some key planning policy parameters, various details and local parking, road and infrastructure impacts of the proposed redevelopment in its current form.

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The Urban Corridor Zone (and High Street Policy Area) derive from application of well-established urban design principles, comprehensive local ('place') contextual analysis and subsequent extensive community engagement in arriving at the resultant agreed planning policy and fundamental design parameters in the Development Plan. Therefore, there is a good appreciation and an expectation that the planning policy should command corresponding respect as a well-reasoned and accepted desired character outcome for the corridor, precinct and places. A proposal and assessment judgement should illustrate due regard for the policy and provide clear justification for any limited variation that may be warranted relative to the specific local circumstances and achieving a better design/place outcome (for all).

Overall, the proposal is well considered and a refined design but there are a number of variations from fundamental policy parameters. Some are limited variations, individually of moderate significance, but some are substantial variations. Further, taken collectively there is a compounding effect, and consequently this leads to the judgement there is a serious variation from applicable Development Plan policy parameters.

The range of matters raised in this report require further consideration by the SCAP as part of the assessment process, including:

- Building over-height - 7 storey versus 5 storey (extra 5.8 metres and 31%)
- Inadequate on-site visitor parking provision (shortfall 8 spaces) and allocation of basement parking for commercial tenants;
- Opey Avenue traffic and on-street parking management;
- Overlooking minimisation;
- Significant and Regulated Trees loss;
- Appropriate trading/operating hours;
- Podium façade detailing and arrangement of footpath canopies;
- Building setbacks to Opey Avenue for additional landscaping;
- Extent and location of trees and landscaping, including internal driveway, western zone boundary setback, correct location details and species selection;
- Unley Road and Opey Avenue public realm implications including provision of street trees replacement and footpath and verge treatment;
- Waste and service vehicle limitations and management;
- Appropriate Stormwater Management
- Planning Consent conditions.

Council has delegated to the Chief Executive Officer or his nominee(s) the authority to negotiate appropriate outcomes regarding street trees, future public realm upgrades, canopy encroachments and outdoor dining arrangements, in the event the application is approved.

Background

The Urban Corridor Zone – High Street (Unley Road) Policy Area, for mixed-use development up to five (5) storeys (18.5 metres), was introduced into the Development Plan on the 31 October 2013.

Concurrently, the Minister for Planning amended Schedule 10 of the Development Regulations to make the State Commission Assessment Panel (SCAP) the relevant authority for development of five (5) storeys or more in the Urban Corridor Zone.

No formal referral to Council is required. A Memorandum of Agreement (MoA) with the Department of Planning Transport and Infrastructure (DPTI) provides for informal referral to Council seeking comments on limited specific matters.

Through the informal MoA arrangements, Council officers can have a limited opportunity to provide input via the DPTI confidential Pre-Lodgement Panel deliberations and Design Review by the Government Architect. This is a voluntary process. It is noted, the applicant has declined to participate on this occasion.

Discussion

The full assessment of the development is the role of the Department of Planning Transport and Infrastructure (DPTI) officers and the ultimate planning approval judgement the role of the State Commission Assessment Panel (SCAP).

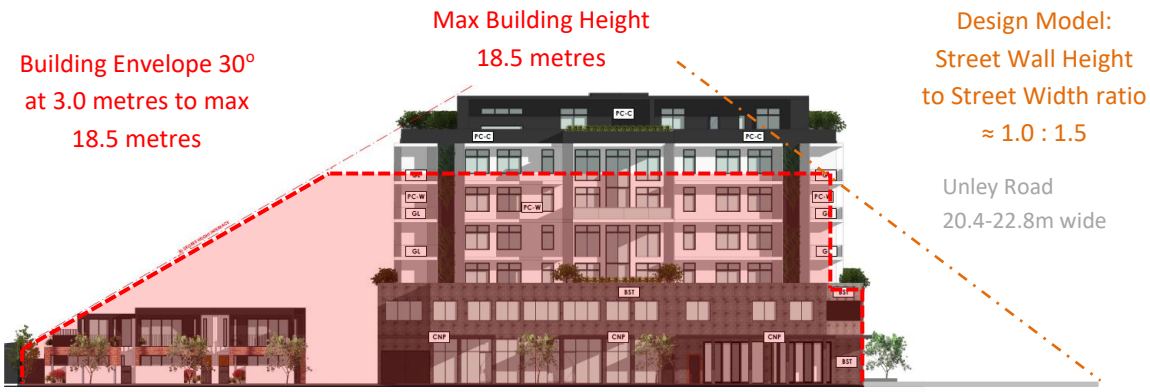
It is appreciated Council's role is limited to comments on matters within its direct control but observations are provided in relation to planning assessment matters from a local perspective to highlight key issues that may require further analysis / assessment by DPTI officers and SCAP.

Proposed Development

In brief, the proposed development encompasses the following key features and planning concerns:

- Site comprising part of overall land holdings with frontage to Unley Road of 39.5 metres and depth of 73.6 metres and 71.5 metres (frontage to Opey Avenue) and an area of approximately 2,850m^2;

- Development comprises a 7-storey mixed use tower on the east major portion of the site (including basement and ground level parking, ground and 2nd floor commercial tenancies and on 2nd to 7th floor 63 apartments) and to the rear west portion of the site 6 x 2-storey townhouses off Opey Avenue.
  In addition to good extent of commercial space and active ground level frontages, a residential net density of 161 dwellings per hectare is well above desired minimum of 60 d/Ha;
- The proposal emulates the recent approved 7-storey (26.9 metres) development at 244-246 Unley Road to the north. Both these proposals reflect the previous whole block approved development in 2015, but with less total mass, smaller corner towers and more articulated design;
- Ground floor to comprise of 5 tenancies (possibly more if internally divided), and part of first floor 3 tenancies adjacent to Opey Avenue, for a range of potential café / shop / office / commercial uses of a nominated 803.5m^2 and an additional flexible coffee bar area in lobby of some 37m^2 equating to a total of 830m^2 net lettable area.
  Car parking calculations are based on gross leasable floor area which is estimated to be around 895m^2;
- Second to seventh levels above to comprise 63 apartments, including 12 x studio, 3 x 1 bedroom, 25 x 2 bedrooms and 23 x 3 bedrooms;
- 6 x 2-storey 3 bedroom townhouses (3 fronting Opey Avenue and 3 to north west corner), each with double garages, are located to the rear/west portion of the site with access and service from the main driveway off Opey Avenue;
- Height to seven (7) storeys (24.3 metres excluding roof services) versus policy of five (5) storeys (18.5 metres). Represents a significant variation over the total desired height by 5.8 metres and 131%.
  Apparent street wall height, to visible balcony not including top recessed level, is 21.5 metres or 116%, still a notable variation.
  Removal of a lower level or two would be more compatible and warranted, with recessed form at 6 storey (21.3 metres and 115% and street wall 18.3 metres and 99%) or 5 storey (18.1 metres and 98%);



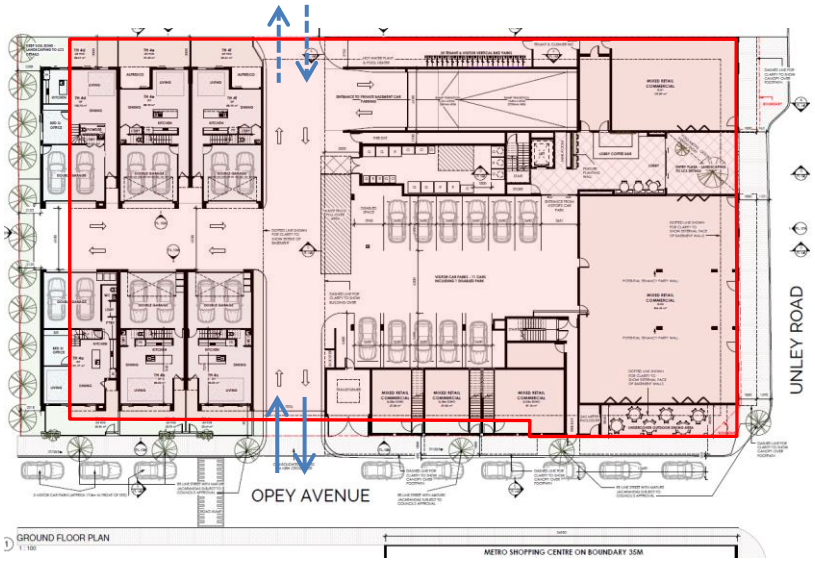
Limited rear built form and mass is positive and that the whole built form and extra tower height is contained within the fundamental zone boundary transition interface building envelope;

- Above the 2 storey podium façade, to Unley Road, upper levels are setback 2.4 metres (versus required 3 metres) with balconies largely recessed, small intrusions, but a notable setback relief is provided;
- Above the 2 storey podium façade, to Opey Avenue, upper levels are setback 3.05 metres, with limited intrusion by a balconey and minor building elevation features;
- The Street Wall height to Unley Road and Opey Avenue (desired 18.5 metres) is limited to around 21.5 metres with the top 7th storey (24.3 metres) recessed from the edge to reduce dominance in perspective. It will still be apparent and dominate from adjacent outlooks, and well beyond desired scale and bulk;

- A positive design response to the local context is evident.
  The building emphasises a modern base podium façade (random bluestone tiled cladding), glazed shop fronts, above canopy fenestration and canopies sections over street frontages.
  Upper residential levels recessed from podium with mixture of mainly white concrete, and charcoal concrete feature elements, large openings and balcony/canopy features to articulate its overall mass.

Appreciate treatment is contemporary and simple but more articulation, colour and detailing could be provided to the podium parapet facade with fenestration relief to its flat profile, projecting column and/or pediment features and emphasised deeper cantilever canopies to better complement the desired and existing intimate and textured streetscape pattern;

- At the ground level 0.0 metre road and side boundary setbacks are acceptable, and up to 3.0 metre setbacks can be provided for outdoor dining, eg Opey Avenue adjacent to Unley Road.
  Along the secondary street frontage of Opey Avenue a 2.0 metre setback from 20.0 metres from the Unley Road alignment should be provided, whereas the 0.0 metres setback extends for some 36 metres. A setback would further soften the Opey Avenue built form and allow for additional landscaping to this part of the streetscape.
- The townhouses provide a positive setback and landscaping relief to this western portion of the total street frontage.
  While the western zone boundary rear setback should be 5.0 metres, the townhouse scale and form emulates a more typical scenario. A reduced setback is reasonable while an appropriate separation and soft green screen is provided;

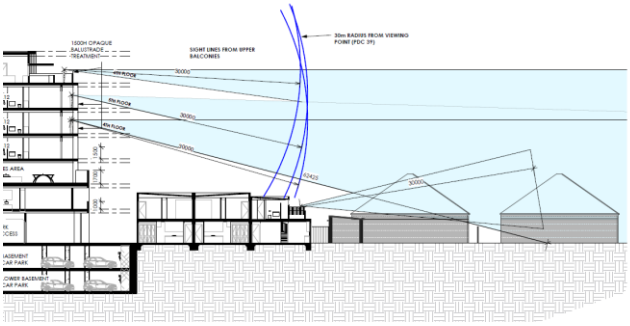


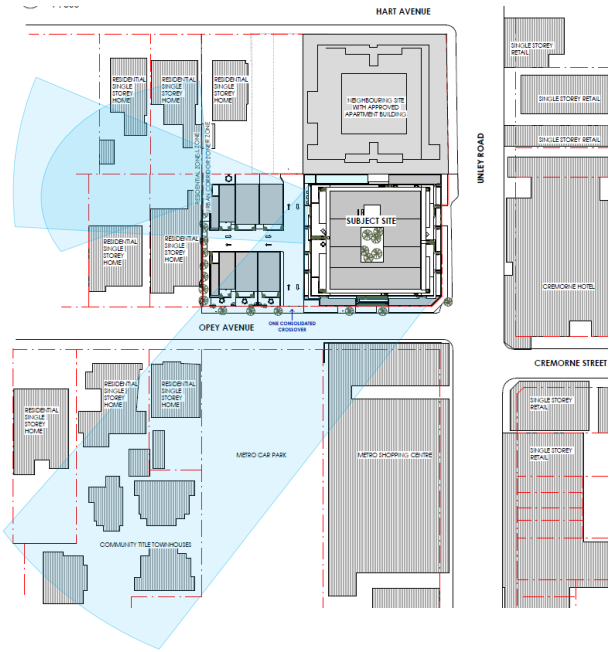
- One two-way accessway (tenant/resident and visitors) is provided to Opey Avenue.
  This consolidates and replaces two current accesses on Opey Avenue and one on Unley Road. This is positive and could realise an extra on-street car space on each frontage. Refer to Council section on broader on-street parking implications.
- It is indicated the accessway through the site will line-up and afford movement through the adjoining site to the north, and vice-a-versa, to improve on-site movements. This is very beneficial but should be reinforced in the development by conditions ensuring accord with approved designs and preferably a reciprocal Encumbrance or Land Management Agreement;

- Required configuration for Opey Avenue that can appropriately accommodate increased traffic movements and frequency of large waste vehicles leads to a need for loss of current on-street parking on one side of the street adjacent to the site. This makes level of on-site parking more critical;
- Internal carparking is provided at ground level (11 spaces) and in two lower internal basement levels (90 spaces – 23 double stacked).
  For 101 spaces 4 disabled disable spaces should be provided – 1 is in visitor area at ground level and while not indicated there are sufficient spaces in basement with extra width that could be so designated. Design and dimensions should be in accordance with Australian Standards.
  Provision for resident parking is generally appropriate and in accord with requirements - 59 spaces for 63 apartments.
  The provision for visitor parking, however, is insufficient.
  With mixed-use the 11 spaces can reasonably be shared between commercial (primarily day-time) and residential (primarily night-time).
  The 69 dwellings require 17.25 spaces (6.25 short).
  The commercial space requires 26.5 spaces. Based on 4 of the studio/1 bedroom dwellings not needing parking spaces there are 8 spaces available for commercial tenants, making a total of 19 spaces (7.5 short).
  Accordingly, there is a shortfall of 8 spaces on-site within the ground level residential visitor/ tenant car park area.
  The ground level visitor parking provision needs to be increased, and/or the commercial floor space and number of dwellings reduced commensurately.
  The parking standards are already favourable and premised on a mixed-use activity and an availability of on-street parking in the area. While on-street parking adjacent to the site may be improved by 2 or 3 through accesssway consolidation, the on-site shortage is compounded by the need to remove all on-street parking on one side of Opey Avenue to accommodate expected vehicles and movements;
- Bicycle parking is provided for 20 public visitors in dedicated room at ground level, 67 racks for employees / occupants with carparks in basements plus room in each apartment's storage area. This exceeds total policy requirements;
- The apartments are provided with good areas for storage within the basements. The townhouses lack necessary and adequate storage (in addition to bin and vehicle areas). Garages have insufficient internal dimensions - double garages min 5.8 x 6.0 metres – some appear as low as 5.5 wide and/or 5.5 deep. This could readily lead to garages becoming used for storage and/or unsuitable for parking and consequently compounding on-street parking demands;
- Removal of significant, regulated and large mature non-regulated trees is an unfortunate loss of mature trees and green canopy.
  The trees form notable landmarks in the streetscape. While it is appreciated the desired nature of intensive development should not be unduly impeded, and the proposed public realm upgrade is appreciated, it is unfortunate some mature planting could not be incorporated into the development. Contribution will need to be made into Council's Urban Trees Fund to compensate for their loss;
- Proposed site landscaping is generally positive but limited to selected areas and of varied scale around rear townhouse area.

While 216m^2 (7.6%) deep soil is nominated as available, some is paved and much is not planted to canopy trees as required. The actual canopy cover requires closer examination.
More trees should be located along the rear western boundary for softening and screening (stagger pedestrian path and relocate bin storage area to create greater spaces along the boundary for trees at key front, middle and rear open areas) and within courtyards to north and south to enhance canopy cover, microclimate and amenity;

- Driveway off Opey Avenue needs widening from minimum 6.0 metres (minimum from kerb edge to hard wall face) and whole access/service area afforded more softening by further planting and/or vertical trellis to walls along the side of northern townhouse group and all western ground levels/walls of front tower mixed use building;
- Larger common and balcony areas small tree and shrub planting is positive to help soften and shade external building elements. The apartments enjoy an internal courtyard with planter boxes and trailing vines;
- Plant species needs review to avoid fruit and deciduous leaves drop plus suitability for circumstance, eg glory vine on upper walls impractical being deciduous, not self-climbing/attaching and requiring mechanical fixing as grows up the very high walls) and evidence of how all are to sustained (individual planter boxes and vines etc) in the long-term;
- Unreasonable open overlooking of adjacent residential private areas, to the west and also obliquely to northwest and southwest, from rear and sides needs to be better addressed, ie by alternative orientation of outlooks, focus on long views, recessed viewing points, over reliance on variable effect vines, higher / wider / angled screening (eg obscure glass) to balconies and windows;
- There is little detailed information of overlooking mitigation and screens. There are some notes about 1.5 metres sills/screens but this is inadequate and below standard of 1.7 metres, unless viewing position physically fixed well back from screen to achieve same effect on downward angle.
  The general *Residential Development* policy regarding a 30 metre separation does not address consideration of the general policy in *Design and Appearance, Interface Between Land Uses, Medium and High Rise Development (3 or More Storeys)* and *Urban Corridor Zone* policy where additional general policy indicates *"…minimise direct overlooking of the habitable rooms and private open spaces of dwellings…" "Development adjacent to a Residential Zone should be designed to minimise overlooking and overshadowing of adjacent dwellings and private open space…" "Balconies … should … allow views … while providing for … visual privacy of nearby living spaces and private outdoor areas…" "…Overlooking … impacts will be moderated through good design and mitigation techniques …" "… Impacts on adjoining zones will be minimised through appropriate … design and location of on-site activities/windows/balconies …"*





- Overshadowing is limited given the built form is contained within the building transition envelope (ie 30º @ 3.0 metres agl). Morning shadow at the worst case winter solstice will be clear of adjoining residential properties from before 10:00am;
- Waste management arrangements (a central separate streams service) from the rear of the main building is appropriate. The three townhouses fronting onto Opey Avenue are able to be serviced by Council's normal on-street service. Waste vehicle servicing is to occur from the rear of the main building and off Opey Avenue. It will involve large vehicles stopping in the street and reversing into accessway to service on-site bin storage area to enable exiting in a forward direction. This is not ideal, and securing indicated potential arrangement to link with site to north, and for both, to facilitate drive-through capability and vehicle entry and exit in a forward direction.
  Operational management condition to limit service times should help reduce potential conflict;
- On-site stormwater management is not nominated, other than it will address policy requirements to provide for lower out flow than existing. Provisions will need to be subject to a condition requiring adequate detention, retention and quality management to address on-site WSUD and required peak stormwater outflows (less than pre-existing or equivalent 80% impervious, whichever is the

lesser) in accord with City Of Unley *Development And Stormwater Management Design Guide*;

- Energy efficiency includes provision for passive design, natural light and cross-ventilation. Solar collection panels are not currently included but good solar access is available for future fitting on the roof-top. General landscaping, courtyard/balcony planting and green walls is positive.
- Construction Management Plan to avoid undue external impact – past experience has demonstrated the critical importance of an effective Construction Management Plan in assisting to mitigate undue impacts, including vehicle movements, worker parking, operating hours, noise etc. The location of this site on a major arterial road means containing the impacts of the construction to the development site is even more critical.

Overall, the proposal has a number of variations from fundamental policy parameters. Some are limited variations, individually of moderate significance, but together and the key elements are considerable variations. The proposal is a new application to be determined on its own merit, not on any previous precedence, and the integrity of the policy, resolved after comprehensive community debate, should be better observed.

Council Issues

Council is able to provide specific comment in relation to matters where there are direct implications upon local public infrastructure as follows:

- Encroachments – footpath canopies
- Public realm and street trees
- Vehicle traffic, access, parking and waste servicing
- Stormwater management

Encroachments

Footpath Canopies

Desirable 1.8 metre wide (up to within 0.6 metres of kerb) separated sections of cantilever canopies are proposed over shop front openings along Unley Road and Opey Avenue. Selected breaks and open sections allow for existing infrastructure and street tree planting.

The proposed outdoor dining on the south east corner, on Opey Avenue adjacent to Unley Road, is entirely contained to the site.

The encroachments over the public realm are lightweight and non-integral to the main building which enables them to be addressed by Council's standard policy licensing requirements.

Public Realm / Street Trees

There are only two small street trees (a *smooth-barked apple* and a *narrow leaf ash*) on the northern side of Opey Avenue. They may be in fair condition but are not noteworthy, of poor form, damaged and intruding into the vegetation clearance zone.

Their suggested removal and replacement is unfortunate. A comprehensive public realm, materials and street tree plan, including multiple Jacaranda's, to suit street frontage configuration, consolidated accessway, footpath building canopies and Council specifications is positive. The public realm and street tree detail will need to be negotiated.

At this stage no discussion has occurred on Council requirements and additional opportunities to collaborate and mutually contribute to a public realm upgrade.

Additional landscaping on the site will be provided adjacent to the rear boundary, around townhouses and upon the upper development and balconeys.

Construction will impact upon the area and footpaths surrounding the site. Alternative arrangements will need to be made during construction.

Any damage, additional planting and reinstatement of footpaths etc will be managed and costs recovered via normal Council procedures from the owner/developer.

Vehicle traffic, access and parking

Traffic and Access

One two-way accessway (tenant/resident and visitors) is provided to Opey Avenue. This consolidates and replaces two current accesses on Opey Avenue and one on Unley Road.

The two-way access is indicated to be 6.1 metres (inclusive of 0.3 metre clearances, including to a hard wall edge) which is minimal and likely to lead to drivers not hugging their sides and therefore blocking opposite movement and interrupting on-street movement. The driveway should be made wider to facilitate easier and safer movement.

Opey Avenue is currently a narrow street and the safe vehicle movement pathways, including for larger waste and service vehicles (max 8.8 metres long) based on more favourable right turn in from Unley Road rather than tighter left turns. Right turns may be complicated by future tram arrangements which may further compound design tolerances in Opey Avenue.

It is indicated the accessway through the site will line-up and could afford movement through the adjoining site to the north, and vice-a-versa, to improve vehicle movements. This is very beneficial. It should be reinforced in the development by conditions ensuring accord with approved designs and preferably a reciprocal Encumbrance or Land Management Agreement.

Traffic generation modelling for peak periods indicates the proposed commercial and mainly residential combination will increase daily traffic along Opey Avenue and the surrounding local road network. However, it will be to a limited degree relative to current extensive largely commercial development and primarily focussed towards Unley Road. The traffic at Opey Avenue/Unley Road intersection should perform satisfactorily. Overall a traffic increase will be noticeable but it is envisaged to have a minor impact on traffic performance and efficiency.

The construction of such a large development will be long and complex requiring careful consideration of staging and management of external impacts, notably traffic, parking, pedestrians and environmental emissions. A Construction Management Plan, to the reasonable satisfaction of Council, should be required as part of the approval and before proceeding with the development.

Parking

Based on provisions for higher density and mixed-use development in the Urban Corridor Zone in the Unley (City) Development Plan (Table Un/5 for residential and Un/5A for commercial) provide for the required car parking as follows:

Land Use	Scale	Rate	Required	Provided
Shop/Office/Consult	850m^2	Min 3 / 100m^2 gla	25.5	
Outdoor Dine	35m^2	Min 3 / 100m^2 gla	1.05	
Visitor – ground level				11*
Tenant - basement				8$^+$
Total			26.55*	19
Apartments				
Studio	12	0.75	9	
1 bed or < 75m^2	3	0.75	2.25	
2 bed or > 75m^2	25	1.25	31.25	
3 bed or > 150m^2	23	1.75	40.25	
Individual access	63			59$^+$
Tandem spaces	23			23
Total			82.75	82
Visitor	63	0.25	15.75*	11*
Townhouses		Table Un/5		
3 bed or > 150m^2	6	1.75	10.5	12
Visitor	6	0.25	1.5*	0*
Total Visitor	69	0.25	17.25*	11*

$^+$ Of the 63 dwellings the equivalent of 4 studio/1 bedroom may be provided with no car space leaving 8 of the total of 67 individually accessible spaces for commercial tenants

* Resident visitor and commercial public parking may be shared given complementary peaks

gla "***gross leasable area*** means ***total floor area*** of a building excluding public or common tenancy areas such as malls, verandahs or public toilets"
"***total floor area*** with respect to a building or other roofed area means the sum of the superficies of horizontal sections thereof made at the level of each floor, inclusive of all roofed areas and of the external walls and of such portions of any party walls as belong to the building"

The provision for tenant and resident parking is generally appropriate and in accord with requirements.

One disable space is provided at ground level but based on 1 space per 25 spaces there should be a total of 4, ie a further 3 within residents area. While not indicated there appears sufficient extra width with some of the basement spaces that could be made suitable.

Car park designation and allocation should be reviewed.

There is inadequate provision for visitor parking. With mixed-use the visitor spaces can reasonably be shared between commercial (primarily day-time) and residential (primarily night-time). The 70 dwellings require 17.5 spaces and is therefore 6.5 short. The commercial space requires 26.5 spaces. Based on 4 of the studio/1 bedroom dwellings not needing parking spaces makes 8 spaces available for commercial tenants. This potentially increases provision to a total of 19 spaces which is therefore 7.5 short. Accordingly, there is a shortage on 6.5 to 7.5 visitor spaces on-site.

The parking standards are already substantially discounted for mixed-use and availability of on-street parking in the area. Expectations for additional discounting based on the reasons already accounted for are unwarranted.

On-street parking adjacent to the site may be improved by 2 or 3 through accesssway consolidation, the on-site shortage is compounded by the need to remove all on-street parking on one side of Opey Avenue to accommodate expected vehicles and movements. There is currently significant on-street parking occurring in this location, mainly from adjacent business premises and staff, and the banning will lead to their relocation. A subsequent comprehensive traffic and parking study will be required to address the appropriate configuration and management within Opey Avenue. The level of on-site parking is therefore critical.

Based on provisions for higher density and mixed-use development in the Urban Corridor Zone in the Unley (City) Development Plan (Table Un/6) provide for the required bicycle parking as follows:

Land Use	Scale	Rate	Required	Provided
Shop/Office/Consult	895m^2			
Employee (basement)		1/150m2	9	8$^+$
Visitor (ground level)		2 + 1/500m2	4	20*
Residential	70			
Resident		1 / 2 dwellings	31.5	59$^+$
Visitor		1 / 6 dwellings	10.5	20*
Total			55	87
Employee / Resident			40.5	67
Visitor			14.5	20

Bicycle parking is provided for 20 public visitors in dedicated room at ground level, 67 racks for employees / occupants with carpark in basements plus room in each apartment's storage area. This exceeds policy requirements.

Waste Servicing

A comprehensive Waste Management Plan addresses the adequate capacity, separated streams and on-site servicing for waste generation.

The townhouses directly fronting onto Opey Avenue can access the standard Council residential waste services.

The remaining Commercial and residential requirements will be met by an on-site management and collection system.

Routine collection is anticipated to occur 9 times per week. Some particular commercial tenants may require additional specific pick-ups and hard waste will occur several times per month on a needs basis.

It has been nominate collections be between 10:00 am to 4:00pm to minimise impacts to residents and peak traffic. While favourable, avoiding Sunday servicing would be positive.

Waste vehicle servicing will occur from Opey Avenue, with the vehicle entering and exiting in a forward direction. Manoeuvring would happen on-site. While not guaranteed, if an agreement with the property to the north is attained trucks can drive through the sites from Hart to Opey Avenue, which would be favourable for both.

Stormwater Management

The existing development has a very high impervious area whilst the proposed development is probably similar.

The maximum runoff flow rate for commercial development is less than pre-existing and desirably the equivalent of 80% impervious (20% pervious) which ever is the lesser.

The outflow to Unley Road and Opey Avenue to address 1:10 year ARI events should be kept below 4 to 5 l/s. These should be distributed equi-distant, and as generously separated as possible, along both the Unley Road and Opey Avenue street frontages. The closest stormwater main is across Unley Road making a direct connection impractical.

Water quality issues are limited. Stormwater is mostly roof run-off, with gross pollutants able to be settled out through the tanks. The driveway and paved surfaces could lead to more pollutants but these are to be treated via grated sump traps.

Planning Consent Conditions

In the event approval is contemplated there are various issues that have been identified where planning conditions are warranted, as follows:

- The accessway through the site, affording movement through the adjoining site to the north, and vice-a-versa, to improve vehicle movements, should be reinforced by a reciprocal Encumbrance or Land Management Agreement to ensure ongoing provision, and appropriate and shared maintenance arrangements;
- Townhouses be provided with adequate storage space (eg >8m^3), in addition to waste bin storage areas and vehicle garage space (ie internal dimensions exceed required 5.8 wide x 6.0 deep;
- Overlooking of adjacent and more remote private habitable areas, provided by the range of lower to higher building levels, towards the south west through to the north west be minimised by further design and mitigation techniques to external window and balcony placement, orientation, vertical and horizontal screening;
- Caparking design and dimensions be reviewed to improve convenient and efficient on-site circulation, space useability and conformity with AS2890;
- Car parking on-site be allocated to ensure:
    - at ground level a minimum of 18 spaces be provided (additional 7 spaces or commercial floor space and dwellings be commensurately reduced);
    - no restricted access to ground level during operating times for commercial activities and residential visitors;
    - a minimum of 8 spaces be allocated in the secure basement parking area for use by staff of the commercial tenancies;
    - double stacked spaces are for the same dwelling;
- Protuberances or similar traffic management treatments as agreed by Council be provided in Opey Avenue at the developers cost to mitigate and discourage vehicle movements to and from the development to the west of the site;
- Payment be made for each of the Regulated and Significant Trees to be removed in accord with Council's Urban Trees Fund within 30 days of the date of the development approval;
- Non-residential land uses not operate outside the hours of 7.00am to 10.00pm Monday to Saturday and 9.00am to 9.00pm Sunday;
- Café/restaurant not operate outside the hours of 7.00am to 11.00pm Sunday to Thursday and 7.00am to 1.00am the following day Friday and Saturday;
- Waste and servicing vehicles be a maximum length of 8.8 metres and enter from, and exit to, Unley Road and via a right turn in to Opey Avenue to ensure the most effective turn path geometry and least impacts;
- Waste and service vehicles only visit the site between 10:00am to 4:00pm Monday to Saturday, excluding Sundays and public holidays;

- Waste servicing accord with the Waste Management Plan and consolidate spaces, allow for compaction and optimise use of larger 1100L bins wherever possible to reduce the number of required collections per week to 9 or less;
- Public realm configuration, alterations and damage in relation to footpaths, verges, encroachments, outdoor dining, crash protection, street trees etc are to be resolved with, and approved by, the Council at the expense of the owner/applicant;
- A detailed stormwater management plan with accompanying calculations shall be submitted which demonstrates the retention/detention volumes to ensure the flow rates discharging from the development are less than or equal to the lesser of pre-existing development or 80% impervious site coverage, and include:
    - stormwater from non-permeable surfaces (eg roofs, courtyards and carparks) collection on-site, treatment, detention and optimised onsite reuse for grey water, eg toilets and landscaping irrigation;
    - rainwater detention and retention tanks be sensitively incorporated into plans without compromising other required functions or overall design with scale, location and screening of screen
    - Street outlets to the street be limited to 4 litres per second each and a maximum of 8 outlets that should be distributed equi-distant and as generously separated as possible along both the Unley Road and Opey Avenue street frontages;
    - connections to the main infrastructure be upgraded to provide sufficient capacity to accept the additional flows generated during a 1 in 10 year storm event;

  The preceding shall be carried out in consultation with Unley Council and to the satisfaction of the Development Assessment Commission;
- A Construction Management Plan be resolved with Council to guide the requirements and operations during construction to avoid traffic, parking, pedestrian and amenity issues;
- It is requested a Note be added indicating pursuant to the policy of the City of Unley On-street Parking Exemption permits are not issued for occupants of new development (post 2013).

Conclusion

The development proposal is of great interest to Unley residents, particularly those in close proximity to the site.

The Council is not the assessing authority, and only an informal referral agency able to make comments. It is therefore appropriate that Council concentrate on the specific areas of direct control while raising its concerns regarding the most significant divergences from the planning policy parameters.

The nature of the large scale mixed use development generally accords with the Urban Corridor Zone intent. However, the highlighted areas of concern with

planning design and council infrastructure matters should be addressed as part of the expected comprehensive assessment by SCAP.

Enquiries

If there are any queries or need for further explanation or information please contact David Brown, Principal Policy Planner, dbrown@unley.sa.gov.au or 8372 5185.

Yours sincerely

Peter Tsokas
CHIEF EXECUTIVE OFFICER

State Commission Assessment Panel
G.P.O. Box 1815,
ADELAIDE SA 5001

Dear Sir,

I advise that this Agency has **the attached/~~no~~ report** to make on the proposed development described below.

Reporting Officer

DAVID BROWN
PRINCIPAL POLICY PLANNER
CITY OF UNLEY

19/6/18
Date

Council	City of Unley
Application Number	090/M005/18 (APPIAN ID 3209)
Type	SCAP
Applicant	Citify and BFC Pty Ltd C/- Future Urban Group
Locality	248 Unley Road, Hyde Park
Hundred	Adelaide
Planner	Karl Woehle

STATE COMMISSION ASSESSMENT PANEL
A COMMITTEE OF THE STATE PLANNING COMMISSION

Level 5, 50 Flinders Street
Adelaide SA 5000

GPO Box 1815
Adelaide SA 5001

Telephone: 08 7109 7060
ABN 92 366 288 135

http://www.dpti.sa.gov.au

Reference: 2018/10998/01
Contact Officer: Karl Woehle
Telephone: 0871097056

07 May 2018

Dear Sir/Madam

INFORMAL REFERRAL

The State Commission Assessment Panel (SCAP) has received the development application described below (all relevant documentation is attached). The SCAP is seeking comment from your Council to assist it in reaching a decision and would appreciate a response within **6 weeks** of receipt of this correspondence. Should no report be received by the SCAP within that period the SCAP will deem that you have no comments to make on the proposal.

Council's comments will not include a full planning assessment of the application, but may include comments on any local strategic issue, policies or plans. This may include comments on proposed policy amendments, planned public realm improvements, traffic management, waste services, encroachments, local heritage issues or the like for consideration by SCAP. Council may also make brief observations in relation to planning assessment matters from a local perspective to highlight key issues that may require further analysis / assessment by SCAP assessing officers.

Your co-operation in using the attached form when replying would be appreciated.

Yours faithfully,

For **STATE COMMISSION ASSESSMENT PANEL**

Council	City of Unley
Application Number	090/M005/18 (APPIAN ID 3209)
Type	SCAP
Applicant	Citify and BFC Pty Ltd C/- Future Urban Group
Locality	248 Unley Road, Hyde Park
Hundred	Adelaide
Planner	Karl Woehle

10 August 2018

The Secretary
State Commission Assessment Panel
GPO Box 1815
ADELAIDE SA 5001

Attention: Karl Woehle
Planning Officer - CBD & Inner Metro Team
Strategic Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure

Dear Commission

SCAP INFORMAL REFERRAL – COUNCIL FURTHER COMMENTS
POST CONSULTATION and AGENCY COMMENTS REVISION
DA 090/M005/18 – MIXED-USE DEVELOPMENT - 248-252 UNLEY ROAD UNLEY

Thank you for referral of the post consultation and Agency comments applicant's revision received on the 30 July 2018 in relation to the above-mentioned application and invitation for further comment by 10 August 2018 to assist the planning assessment process by the State Commission Assessment Panel (SCPA).

The developer and architect designer are commended on their positive considered response and sensitive refinements towards achieving a better and 'good design' outcome. This evident respect for the context of the locality, site and policy intent and focussing on a quality outcome helps redeem some of the variation from planning policy.

These further comments supplement the original comments and detailed submission, and focus on addressing the revised elements and few remaining areas of concern.

The revisions address a number of the areas of concern originally raised and are a further positive refinement of the design and detail of the proposal. However, some areas of concern remain which require further consideration by the SCAP as part of the assessment process, including:

- Building height at 7 storey versus 5 storey (18.5 metres street wall and overall scale) with an extra 3.0 metres (16%) to street-wall and 5.8 metres (31%) overall are still considered serious variations.

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Telephone (08) 8372 5111
Facsimile (08) 8271 4886
Email pobox1@unley.sa.gov.au
Website www.unley.sa.gov.au

- The advantage of a larger site, containment within interface envelope, recess of upper levels, reduced height compared to adjacent approved excessive benchmark and incorporation of affordable housing helps redeem some respect for the policy intent;
- The parking provision situation is more favourable and close to parking policy requirements.
  The dwelling composition has changed (2 x 1 bedroom in lieu of 2 x 2 bedroom), dwelling number reduced (4 x 2 bedroom) and the grade level visitor parking increased by 2 spaces.
  The total (gross leasable) commercial floor space appears unchanged (895m^2).
  On the basis of allocating available 12 basement spaces to commercial tenants, 55 spaces (including 23 double stacked) for 59 dwellings (4 studio apartments do not require parking) and the 13 grade carparks (shared between commercial and residential) reduces the visitor parking shortfall to 1 space for commercial and to 2 spaces (3 including townhouses) for residential.

  Planning Condition:

  On-site car-parking be provided in accordance with the following:

  - *In the Basement Carpark 12 vehicle spaces be allocated to commercial tenants;*
  - *In the Grade Carpark the 13 vehicle spaces be available for free and at all times for commercial and residential visitors;*
  - *All carpark areas and vehicle spaces comply with AS 2890;*
- On-street parking improvement by 3 spaces along the development site frontages is noted and positive.
  However, such parking is not allocated to the site nor fully substitutes for required rates of on-site provision (which assumes a level of on-street parking in any event).
  Further, to provide for the safe and convenient movement and access/egress of vehicles, and particularly large service and waste trucks, the existing No Parking Zone on the south side of Opey Avenue will require extension beyond the proposed access/egress driveway leading to the removal of 2 on-street spaces, largely off-setting any gain on the north side;

  Planning Note:

  Pursuant to the policy of the City of Unley On-street Parking Exemption, permits are not issued for occupants of new development;
- Overlooking minimisation treatments clarification and incorporation of balustrade screen approach to western balconies and top-level decks is positive.
  The remaining area of concern is to the south west across Opey Avenue where it is considered there will be some open aspects into a dwelling rear yard and potentially some smaller courtyards. The drone pictures are inconclusive; being from the centre of the site, focussed to the south (and not the south-west) and the views being obscured by the existing mature trees on the site that are to be removed.

Orientation of views from windows and balconies away from the south-west by suitable design treatments would be favourable;

- Recognise previous and policy support for removal of Significant and Regulated Trees but the loss of such existing landmark and mature landscaping is unfortunate;
- Podium façade detailing refinement, enlargement and arrangement of footpath canopies to Unley Road and pergola frames to Opey Avenue, public realm and street tree provision is positive. Details of this will need to be discussed with the City of Unley.

  Other Approvals – City of Unley:

  An Encroachment Approval will be required for structures beyond the site boundaries and over the public footpath;

  Liaison and approval will be required regarding protection, damage, reconstruction, upgrade, street trees and contribution to footpaths and public realm;
- Building arrangement to Opey Avenue is reasonable in the circumstances. The setback at ground level does not address the lack of setback of major 2 storey podium, but is reasonable in circumstances given locality context and favourable transition of townhouses for western portion of site;
- Storage provision improvement to townhouses, as part of larger higher rise complex even though they themselves may be 2 storey, is positive.
  The width of some and depth of all the garages appear slightly below planning criteria (ie 5.8 x 6.0 metres) in the Unley (City) Development Plan, notwithstanding other standards.
  Reduced width of garages may compromise the convenience of their access for a second vehicle and lead to extra pressure upon visitor and on-street parking, already below desired rates.
  Reduced depth of garages may compromise convenient parking, particularly for larger vehicles, and overall storage space. The benefit of designated waste bin space and additional overhead storage provision affords a reasonable off-set;
- General extent of landscaping and trees; including around internal driveway, western zone boundary, townhouse setbacks, apartment building walls, balconies and deck is generous and positive. The response revisions further refines the extent in critical areas, the detailed design and suitable species;
- Trading hours of commercial development and potential range of land uses is appropriate (ie standard hours 7.00am to 10.00pm Monday to Saturday and 9.00am to 9.00pm Sunday) and noted as acceptable to applicant. An additional extended range of hours was suggested for limited specific purposes if necessary but can be addressed later if required;

  Condition:

  Non-residential land uses do not operate outside the hours of 7.00am to 10.00pm Monday to Saturday and 9.00am to 9.00pm Sunday;

- Waste and service vehicle limitations and management (noted to occur on-site) have been nominated to minimise resident and peak traffic impacts and are favourable;

  Condition:

  Waste and service vehicle collections and deliveries be between 10:00 am to 4:00pm Monday to Saturday;

- Appropriate Stormwater Management indicating limitation of stormwater outflow from the site to less than existing, or a maximum of equivalent of 80% impervious, is noted but the full details of necessary detention tanks, retention tanks and reuse of water on-site all needs to be documented prior to Development Approval;

  Condition:

  Full details be provided of on-site water detention tanks, retention tanks (and re-use) and quality management to address WSUD and limit peak stormwater outflows to less than pre-existing or equivalent of 80% impervious, in accord with City Of Unley Development and Stormwater Management Design Guide. The individual outflow pipes to the street to address 1:10 year ARI events must be below 4 l/s each and distributed equi-distant, and as generously separated as possible, along both the Unley Road and Opey Avenue street frontages.

- A comprehensive Construction Management Plan is required prior to Development Approval and commencement to avoid undue external impacts during construction;

  Condition:

  Construction Management Plan be developed and agreed prior to Development Approval to mitigate undue impacts upon the locality; including:

  - *Staging to contain activity to the site;*
  - *Traffic requirements including construction access/egress and heavy vehicle routes;*
  - *Tradesperson vehicle parking;*
  - *Work in the public realm;*
  - *Hoardings;*
  - *Operating hours and noise control.*

Conclusion

The development proposal is of great interest to Unley residents, particularly those in close proximity to the site.

The Council is not the assessing authority, and only an informal referral agency able to make comments. It is therefore appropriate that Council concentrate on the specific areas of direct control while raising its concerns regarding the most significant divergences from the planning policy parameters.

The nature of the large scale mixed use development generally accords with the Urban Corridor Zone intent. However, the few remaining highlighted areas of concern with planning design and council infrastructure matters should be addressed as part of the expected comprehensive assessment by SCAP.

Enquiries

If there are any queries or need for further explanation or information please contact David Brown, Principal Policy Planner, dbrown@unley.sa.gov.au or 8372 5185.

Yours Sincerely

Peter Tsokas
CHIEF EXECUTIVE OFFICER

Parking – DA 090/M005/18

Based on provisions for higher density and mixed-use development in the Urban Corridor Zone in the Unley (City) Development Plan (Table Un/5 for residential and Un/5A for commercial) provide for the required car parking as follows:

Land Use	Scale	Rate	Require	Provide	Change	Short
Shop/Office/Consult	850m^2	Min 3/100m^2 gla	25.5			
Outdoor Dine	35m^2	Min 3/100m^2 gla	1.05			
Visitor – ground level				13*	+2	
Tenant - basement				12$^+$	+4	
Total			26.55*	25	+6	-1.5
Apartments		Table Un/5				
Studio	12	0.75	9			
1 bed or < 75m^2	5	0.75	3.75			
2 bed or > 75m^2	17	1.25	21.25			
3 bed or > 150m^2	25	1.75	43.75			
Individual access				55$^+$	-4	
Tandem spaces				23		
Total			77.75	78		
Visitor	59	0.25	14.75*	13*		-1.75
Townhouses		Table Un/5				
2 bed or > 75m^2	2	1.25	2.5	4		
3 bed or > 150m^2	4	1.75	7.0	8		
Total			9.5	12		
Visitor	6	0.25	1.5*	0*		
Total Visitor	65	0.25	16.25*	13*	+2	-3.25

$^+$ Of the 59 dwellings the equivalent of 4 studio/1 bedroom may be provided with no car space leaving 12 of the total of 67 individually accessible spaces for commercial tenants

* Resident visitor and commercial public parking may be shared given complementary peaks

gla "***gross leasable area*** means ***total floor area*** of a building excluding public or common tenancy areas such as malls, verandahs or public toilets"

"***total floor area*** with respect to a building or other roofed area means the sum of the superficies of horizontal sections thereof made at the level of each floor, inclusive of all roofed areas and of the external walls and of such portions of any party walls as belong to the building"

Civic Centre 181 Unley Road
Unley, South Australia 5061
Postal PO Box 1
Unley, South Australia 5061

Telephone (08) 8372 5111
Facsimile (08) 8271 4886
Email pobox1@unley.sa.gov.au
Website www.unley.sa.gov.au

SOUTH AUSTRALIAN DEVELOPMENT ACT 1993
REPRESENTATION ON APPLICATION – CATEGORY 2

Applicant:	Citify and BFC Pty Ltd C/- Future Urban Group
Development Number:	090/M005/18
Nature of Development:	Demolition of existing building structures, removal of two significant and one regulated tree. Construct six, two storey residential dwellings and a seven storey mixed use building containing five commercial tenancies, residential apartments, landscaping, ancillary car parking and associated building work.
Zone / Policy Area:	Urban Corridor Zone, High Street (Unley Road) Policy Area 20
Subject Land:	248 Unley Road, Hyde Park
Contact Officer:	Karl Woehle
Phone Number:	7109 7169
Close Date:	13 June 2018

My name: CRINISOARA TAMARA SOLOMON

My phone number: 0402869383

PRIMARY METHOD(s) OF CONTACT: Email address: ctina solomon@icloud.com

Postal address: 7 OPEY AVE

HYDE PARK SA Postcode 5061

You may be contacted via your nominated PRIMARY METHOD(s) OF CONTACT if you indicate below that you wish to be heard in support of your submission.

My interests are:

- [x] owner of local property
- [ ] occupier of local property
- [ ] a representative of a company/other organisation affected by the proposal
- [ ] a private citizen

The address of the property affected is 7 OPEY AVE, HYDE PARK Postcode 5061

The specific aspects of the application to which I make comment on are:

- [ ] I support the development;
- [ ] I support the development with some concerns;
- [x] I oppose the development

(Please tick one)

For the following reasons:

- not enough infrastructure to accomodate traffic and school needs
- change of suburb character
- noise
- cut of significant trees and plantation
- inconvinience during building

Should the State Commission Assessment Panel conduct a public hearing for this Development Application:

I

- [x] **wish to be heard in support of my submission**
- [ ] **do not wish to be heard in support of my submission**

(Please tick one)

By

- [x] **appearing personally**
- [ ] **being represented by the following person:**

(Please tick one)

Date 4.6.2018 Signature

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or scapadmin@sa.gov.au. **#11853027**

SOUTH AUSTRALIAN DEVELOPMENT ACT 1993
REPRESENTATION ON APPLICATION – CATEGORY 2

Applicant:	Citify and BFC Pty Ltd C/- Future Urban Group
Development Number:	090/M005/18
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Subject Land:	248 Unley Road, Hyde Park
Contact Officer:	Karl Woehle
Phone Number:	7109 7169
Close Date:	13 June 2018

My name: _____

My phone number: _____

PRIMARY METHOD(s) OF CONTACT: Email address: _____

Postal address: _____

_____ Postcode _____

You may be contacted via your nominated PRIMARY METHOD(s) OF CONTACT if you indicate below that you wish to be heard in support of your submission.

My interests are:

- [x] owner of local property
- [x] occupier of local property
- [ ] a representative of a company/other organisation affected by the proposal
- [ ] a private citizen

The address of the property affected is _____ Postcode _____

The specific aspects of the application to which I make comment on are:

- [x] I support the development;
- [ ] I support the development with some concerns;
- [ ] I oppose the development

(Please tick one)

For the following reasons:

UNLOCK NEEDS URBAN DENSITY

Should the State Commission Assessment Panel conduct a public hearing for this Development Application:

I

- [ ] **wish to be heard in support of my submission**
- [x] **do not wish to be heard in support of my submission**

(Please tick one)

By

- [ ] **appearing personally**
- [ ] **being represented by the following person:**

(Please tick one)

Date 30/5/18 Signature _____

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or scapadmin@sa.gov.au.

#11853027

SOUTH AUSTRALIAN DEVELOPMENT ACT 1993
REPRESENTATION ON APPLICATION – CATEGORY 2

Applicant:	Citify and BFC Pty Ltd C/- Future Urban Group
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Contact Officer:	Karl Woehle
Phone Number:	7109 7169
Close Date:	13 June 2018

My name: _____

My phone number: _____

PRIMARY METHOD(s) OF CONTACT: Email address: _____

Postal address: _____

_____ Postcode _____

You may be contacted via your nominated PRIMARY METHOD(s) OF CONTACT if you indicate below that you wish to be heard in support of your submission.

My interests are:

- [x] owner of local property
- [x] occupier of local property
- [ ] a representative of a company/other organisation affected by the proposal
- [ ] a private citizen

The address of the property affected is _____ Postcode _____

The specific aspects of the application to which I make comment on are:

- [x] I support the development;
- [ ] I support the development with some concerns;
- [ ] I oppose the development

(Please tick one)

For the following reasons:

UNLEY NEEDS URBAN DENSITY

Should the State Commission Assessment Panel conduct a public hearing for this Development Application:

I

- [ ] **wish to be heard in support of my submission**
- [x] **do not wish to be heard in support of my submission**

(Please tick one)

By

- [ ] **appearing personally**
- [ ] **being represented by the following person:**

(Please tick one)

Date 30/5/18 Signature _____

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or scapadmin@sa.gov.au.

#11853027

SOUTH AUSTRALIAN DEVELOPMENT ACT 1993
REPRESENTATION ON APPLICATION – CATEGORY 2

RECEIVED
13 JUN 2018
State Commission Assessment Panel

Applicant:	Citify and BFC Pty Ltd C/- Future Urban Group
Development Number:	090/M005/18
Nature of Development:	Demolition of existing building structures, removal of two significant and one regulated tree. Construct six, two storey residential dwellings and a seven storey mixed use building containing five commercial tenancies, residential apartments, landscaping, ancillary car parking and associated building work.
Zone / Policy Area:	Urban Corridor Zone, High Street (Unley Road) Policy Area 20
Subject Land:	248 Unley Road, Hyde Park
Contact Officer:	Karl Woehle
Phone Number:	7109 7169
Close Date:	13 June 2018

My name: Simon Wood

My phone number: 82729092

PRIMARY METHOD(s) OF CONTACT: Email address: goodyshoes@internode.on.net

Postal address: _____

_____ Postcode _____

You may be contacted via your nominated PRIMARY METHOD(s) OF CONTACT if you indicate below that you wish to be heard in support of your submission.

My interests are:

- ☐ owner of local property
- ☑ occupier of local property
- ☐ a representative of a company/other organisation affected by the proposal
- ☐ a private citizen

The address of the property affected is Shop 1/213 Unley Rd Malvern Postcode 5061

The specific aspects of the application to which I make comment on are:

- ☐ I support the development;
- ☑ I support the development with some concerns;
- ☐ I oppose the development

(Please tick one)

For the following reasons:

We understand that 7 various trees (all Australian natives - but not all local species) are to be removed + replaced by Jacarandas which are not Australian variety. These trees currently provide a large habitat + food for local fauna Parakeets, Parrots, Rosellas Honey eaters, Magpies + crows. There has been an overmaximisation of land use without the long term benefit to our local environment. Reduce the number of units by 2 on the western boundary + insist on planting of local species. Unley Council does already get the reputation of reducing its green footprint.

Should the State Commission Assessment Panel conduct a public hearing for this Development Application:

I

- ☐ **wish to be heard in support of my submission**
- ☑ **do not wish to be heard in support of my submission**

(Please tick one)

By

- ☐ **appearing personally**
- ☐ **being represented by the following person:**

(Please tick one)

Date 1 - 6 - 18 Signature Simon Wood

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or scapadmin@sa.gov.au. **#11853027**

The Secretary
State Commission Assessment Panel
GPO Box 1815
ADELAIDE SA 5001

Dear Secretary

090/M005/18 - 248 Unley Road, Hyde Park - Demolition of existing building structures, removal of two significant and one regulated tree. Construct six, two storey residential dwellings and a seven storey mixed use building containing five commercial tenancies, residential apartments, landscaping, ancillary car parking and associated building work.

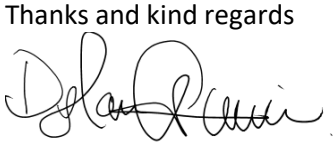
Thank you for the opportunity to comment on the above development application.

I do not object to the proposal should the following points be satisfactorily addressed.

- Car parking: The visitor car parking provided (11 spaces) is inadequate for a mixed-use and residential development of this scale. Particularly, as there is no on-site visitor car parking for the townhouse development. The proposed development should not result in a reliance on off-street car parking within the immediate locality to support to supply adequate car-parking for the proposed development.
- The terrace to townhouse 'TH4d' needs to be adequately screened to a (minimum) height of 1.7m above floor level to mitigate overlooking into adjoining and adjacent private open space.
- The proximity of the townhouse built form at the north-western corner of the subject site should be mitigated by appropriate screening, landscaping and fencing to acoustically address interface conflict with adjoining properties, particularly from alfresco areas and visitor and truck deliveries / pick up from the vehicle manoeuvring areas. The fencing should be erected prior to construction to alleviate the impact of construction noise to adjoining properties.
- Details of air-conditioning equipment are not indicated on the townhouse plans. This equipment must be screened to address acoustic and visual amenity for adjoining properties.
- The trees indicated on the western boundary need to be planted as mature trees and of a height that prevents overlooking and conditioned to be replaced if the tree gets diseased or dies.
- The apartments looking north-west should incorporate design solutions to mitigate overlooking to the north and west. This could be by way of blade walls, louvers etc.
- Overall, the proposal is an overdevelopment of the site. This is exemplified by the apartment sizes, particularly the studio apartments; the stacked car parking; minimal vehicle manoeuvring areas and numerous variances with Council's Development Plan. The proposal needs to be scaled to a proportion where the impacts created by the development can be contained on site and interface issues mitigated to the reasonable satisfaction of Council and owners and occupiers within the immediate locality.

I welcome the opportunity to present to the Panel at the appropriate time.

Thanks and kind regards



On behalf of
Rosalie Grieve
5 Hart Avenue, Unley SA 5061

SOUTH AUSTRALIAN DEVELOPMENT ACT 1993
REPRESENTATION ON APPLICATION – CATEGORY 2

Applicant:	Citify and BFC Pty Ltd C/- Future Urban Group
Development Number:	090/M005/18
Nature of Development:	Demolition of existing building structures, removal of two significant and one regulated tree. Construct six, two storey residential dwellings and a seven storey mixed use building containing five commercial tenancies, residential apartments, landscaping, ancillary car parking and associated building work.
Zone / Policy Area:	Urban Corridor Zone, High Street (Unley Road) Policy Area 20
Subject Land:	248 Unley Road, Hyde Park
Contact Officer:	Karl Woehle
Phone Number:	7109 7169
Close Date:	13 June 2018

My name: Renée Amyot

My phone number: 8373 1708, 0403159990

PRIMARY METHOD(s) OF CONTACT: Email address: amyot.byard@ozemail.com.au

Postal address: 9 Opey Avenue

Hyde Park Postcode 5061

You may be contacted via your nominated PRIMARY METHOD(s) OF CONTACT if you indicate below that you wish to be heard in support of your submission.

My interests are:

- [X] owner of local property
- [ ] occupier of local property
- [ ] a representative of a company/other organisation affected by the proposal
- [ ] a private citizen

The address of the property affected is 9 Opey Avenue, Hyde Park Postcode 5061

The specific aspects of the application to which I make comment on are:

- [ ] I support the development;
- [ ] I support the development with some concerns;
- [X] I oppose the development

(Please tick one)

For the following reasons:

While I recognise the need to renew properties along the Unley Road corridor, I believe that this building is simply too tall for the site. The height of the mixed use building is acknowledged in the proposal to be a "substantial" departure from the allowable height under Principle 12. This is sought to be justified by the fact that the departure is not as bad as the adjoining development already approved. The applicants also seek justification for the departure because the proposed development is "less than 100 metres" from a zone in which it would be allowable. This "near enough is good enough" argument makes a mockery of the Development Plan and the approval process. Development should be undertaken according to the Development Plan, particularly in the earliest sages of high rise development in this area, rather than setting precedents which render the Development Plan meaningless.

Should the State Commission Assessment Panel conduct a public hearing for this Development Application:

I

- [X] **wish to be heard in support of my submission**
- [ ] **do not wish to be heard in support of my submission**

(Please tick one)

By

- [X] **appearing personally**
- [ ] **being represented by the following person:**

(Please tick one)

Date 13 June 2018 Signature Renée Amyot

Return Address: The Secretary, State Commission Assessment Panel, GPO Box 1815, Adelaide SA 5001 or scapadmin@sa.gov.au.

#11853027

26 July 2018

Ground Floor
89 King William Street
GPO Box 2403
Adelaide SA 5001
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ABN: 34 452 110 398

Mr Karl Woehle
Planning Officer – CDB & Inner Metro Team
Strategic Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
Via email: karl.woehle@sa.gov.au

Dear Karl,

RE: DEVELOPMENT APPLICATION 090/M005/18

Thank you for providing a copy of the City of Unley's comments to us.

The City of Unley ('the Council') has stated that "*the proposal is well considered*" and that it involves "*a refined designed*."

The Council has also stated that a range of matters require further consideration by the Department of Planning, Transport and Infrastructure ('the Department') as part of the ensuing assessment process.

The purpose of this letter is to provide a consolidated response to the Council's comments in relation to these matters.

Building Height

The Council is concerned that the mixed use building is too tall and that it will be visually dominant.

We do not share the Council's concerns for several reasons.

First, the fifth and sixth floor levels will be set back between 28.7 metres and 34.9 metres further than the recommended distance from the boundary that separates the Urban Corridor Zone from the Residential Streetscape (Built Form) Zone. The external walls of the sixth floor level will also be heavily recessed and clad in dark materials so as to ensure that it remains relatively inconspicuous from all angles.

Second, no part of the mixed use building will extend beyond the confines of the 'interface building envelope,' as sought by Principle 13 of the Urban Corridor Zone.

Third, the mixed use building will be 2.55 metres lower than the building which was approved on this site by the then Development Assessment Commission in March, 2015. The provisions which applied to that development also apply to this development.

Fourth, the mixed use building will be 2.35 metres lower than the recently approved building on the adjoining allotment to the north of the site.

Fifth, the mixed use building respects its existing low scale context through the provision of a bluestone podium which complies with Principle 8 of High Street (Unley Road) Policy Area 20 ('PA 20').

Sixth, the group dwellings and residential flat building will provide for a reasonable transition and gradation from the seven storey mixed use building to the east to the single storey detached dwelling on the adjoining allotment to the west.

Seventh, none of the adjacent habitable room windows or private open spaces will be overlooked or overshadowed to an unreasonable degree.

Eighth, the additional height will allow the proponents to set aside almost the entire first floor level for the affordable housing market. This is something which is rarely seen in a development of this quality and in an area as prestigious as Hyde Park.

Ninth, the Government Architect, who is best qualified to comment on this particular aspect of the proposal, has stated, in writing, that they support the overall height of the mixed use building.

Podium

The Council has called for more articulation, colour and detailing to be provided to the podium of the mixed use building which it describes as having a "*flat profile.*"

The proponents have since reviewed the design of the podium and commissioned their draftsperson to:

- 'round' the south-eastern and south-western edges of the podium;
- remove the sliding windows which belong to the balconies on the first floor level;
- recess the columns on the eastern side of the main entrance;
- increase the depth of the canopies by 300 millimetres, from 1.8 metres to 2.1 metres; and
- install two steel pergolas which will extend over the footpath on the northern side of Opey Avenue and eventually be covered by creepers.

These refinements will give the podium a greater sense of depth and add to its aesthetic appeal.

Secondary Boundary Setback

The Council has called for that part of the podium that is located more than 20 metres to the west of the primary boundary of the site to be set back 2.0 metres from Opey Avenue.

Whilst the upper level of the podium will extend approximately 35.0 metres to the west of the primary boundary of the site, we do not consider this numerical departure to be insurmountable on the basis that:

- the abutting portion of the ground floor level of the podium will only extend 22.8 metres to the west of the primary boundary of the site (beyond this point, the ground floor level of the podium will be set back 1.9 metres from Opey Avenue);
- the majority of the ground floor level of the podium will be set back between 1.9 metres and 3.0 metres from Opey Avenue;
- the intent of Principle 15 of the Urban Corridor Zone, which is to provide a transition in the scale and intensity of development at the periphery of this Zone, has been satisfied on the basis that the group dwellings will be set back more than 2.0 metres from Opey Avenue; and

- the adjacent Metro Shopping Centre to the south abuts the southern side of Opey Avenue for roughly the same distance (33.0 metres).

Domestic Storage Space

The Council has asserted that the group dwellings and those dwellings within the residential flat building "*lack necessary and adequate storage.*" The Council has also called for each of these dwellings to be provided with not less than 8.0 cubic metres of domestic storage space, presumably on the basis that it believes that Principle 25 of the 'Medium and High Rise Development' Module applies.

With all due respect to the Council, this Principle does not apply to any of these dwellings, as none of them have been designed to exceed two storeys in height.

Be that as it may, the proponents have taken the Council's comments on board and decided to install another 2.7 cubic metres of overhead storage within each of the double garages.

As a consequence of this, each of these dwellings will now come equipped with not less than 8.0 cubic metres of domestic storage space.

Overlooking

The Council is concerned that the adjacent habitable room windows and private open spaces to the south-west, west and north-west of the site will be overlooked to an unreasonable degree.

In light of the Council's concern, all of the west-facing balconies have been amended and will now feature a 1.6 metre high balustrade which consists of a masonry component that is 1.0 metre high, privacy louvres which are 600 millimetres high and designed to sit directly atop the masonry component, and a 300 millimetre bench which should keep the prospective residents and their guests away from the western edge.

These balustrades now strike what we consider to be a satisfactory balance between minimising direct views and ensuring that the prospective residents continue to have a reasonable outlook.

As far as the south-facing balconies are concerned, the proponents have decided against amending these, as the enclosed photograph, which was taken by a drone hovering at around 22 metres above the existing ground level, clearly indicates that none of the habitable room windows or private open spaces on the southern (opposite) side of Opey Avenue will be overlooked to an unreasonable degree.

Access, Parking and Traffic

Mr Thomas Wilson, a qualified and experienced traffic engineer, has been commissioned by the proponents to review and subsequently respond to the Council's comments regarding the proposed access and parking arrangements, and the development's likely effect on the surrounding road network.

Mr Wilson's response is enclosed for your consideration.

Stormwater

Mr Matthew Primer, a qualified and experienced civil engineer, has been commissioned by the proponents to review and subsequently respond to the Council's comments regarding stormwater.

Mr Primer's response is enclosed for your consideration.

Waste

It has been asserted by the Council that the proposal "*will involve large vehicles stopping in the street and reversing into the accessway.*"

This assertion is incorrect, as the common driveway has been designed to allow the private contractor's waste collection vehicle to be driven into the site via Opey Avenue and to be driven out of the site via a free and unrestricted right of way over the common driveway which forms part of the recently approved development on the northern side of the site and connects into the southern side of Hart Avenue.

Landscaping

The Council has stated that "*it is unfortunate some mature planting could not be incorporated into the development.*"

We are somewhat puzzled by this statement, as it is quite clear from the detailed landscaping plans that:

- six Forest Pansies, which are capable of growing to around 5.0 metres in height, will be planted between the group dwellings and Opey Avenue;
- 13 Crimson Spires, which are capable of growing to around 6.0 metres in height, will be planted between the group dwellings and the western boundary of the site;
- three Chinese Elms, which are capable of growing to around 10.0 metres in height, will be planted between the residential flat building and the western boundary of the site;
- another five Chinese Elms will be planted between the residential flat building and the northern boundary of the site;
- the central atrium on the second floor level of the mixed use building will feature a handful of Native Frangipanis which are capable of growing to around 5.0 metres in height; and
- 16 Crepe Myrtles, which are capable of growing to around 4.0 metres in height, will be planted along the perimeter of the mixed use building's upper floor levels.

The Council has also stated that the trellised Glory Vines are impractical and should be reviewed.

The proponents have taken the Council's comments on board and since decided to replace the Glory Vines with Creeping Figs, as they are not deciduous and will not require any mechanical fixing.

Tree Damaging Activity

The Council has stated that the removal of the regulated and significant trees "*is an unfortunate loss.*"

Whilst we do not necessarily disagree with this statement, the proponents' arborist has recommended that these trees be removed on the basis that:

- they would, if left untouched, significantly impede a form of development that is both reasonable and expected when considered in the context of the Zone's aspirations and the previous approval over this site; and
- if the development were to be designed around the structural root and tree protection zones, the siting of the mixed use building would be completely at odds with the intent and general direction of the Zone (it would also lessen the degree of activation along the ground floor level).

As an aside, it is also important to keep in mind that these trees were approved for removal by the then Development Assessment Commission as part of Development Application 090/M003/15.

Operating Hours

The Council has advised the Department to impose restrictions by way of conditions on the operating hours of the tenancies on the ground and first floor levels of the mixed use building.

Whilst the proponents are not opposed to the proposed conditions, we encourage the Department to rephrase them, as they presently conflict with one another. Put simply, there is no point imposing the second condition, which relates only to cafés and shops, when the first condition relates to, and captures, all non-residential land uses.

Construction Management

The Council has stated that a construction management plan should be provided.

Should the State Commission Assessment Panel be of the mind to grant development plan consent to the proposal, the proponents would not object to the imposition of a condition which requires them to furnish a construction management plan prior to the approved works commencing.

This plan, like most others, would outline the staging, timing and methodology of the construction process.

It would also identify how dust, noise, stormwater, traffic and waste is to be managed.

Summary

We trust that our consolidated response to the Council's comments will enable you to finalise your assessment of the proposal.

With that said, please do not hesitate to contact the undersigned in the event that you require anything else.

Yours Sincerely

Fabian Barone
Senior Urban Planner

26 July 2018

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

Mr Karl Woehle
Planning Officer – CBD & Inner Metro Team
Strategic Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
Via email: karl.woehle@sa.gov.au

Dear Karl,

RE: DEVELOPMENT APPLICATION 090/M005/18

Thank you for providing a copy of the Government Architect's comments to us.

We note that the Government Architect is generally supportive of the proposed development.

We also note that the Government Architect has called for various elements of the proposed development to be reviewed and subsequently refined.

The purpose of this letter is to summarise those refinements that have been made and to provide clarity on several matters.

Common Driveway

In order to improve the appearance of the common driveway, the proponents have commissioned their landscape architects to affix a vertical trellis to the eastern façade of Dwellings C and F, and to connect the group dwellings and residential flat building together by affixing a horizontal trellis over that section of the common driveway which runs in an east – west direction.

Southern Façade of the Mixed Use Building

In order to improve the expression of the southern façade of the mixed use building, the proponents have commissioned their draftsperson to:

- 'round' the south-eastern and south-western edges of the bluestone podium; and
- break the upper floor levels of this particular façade down into three distinctive elements or components by introducing those pigmented concrete cuboids which have already been deployed to great effect on the eastern and western sides of the mixed use building.

These refinements add to the building's kerb appeal without disrupting its relatively uniform appearance, and significantly reduce its apparent bulk by promoting both light and shade.

Concrete Panels

The concrete panels associated with the mixed use building will come with a pigmented or stained finish, not an applied or painted finish.

As such, they are unlikely to require continuous maintenance.

Type E Apartments

The proponents agree that the amenity of the 'inboard' bedroom belonging to the Type E Apartments on the first floor level is compromised and have since decided to reduce the number of bedrooms within these Apartments from two to one.

The Government Architect will be pleased to see that the remaining bedroom will come equipped with two windows, and that no part of the open plan kitchen, dining and living room will be more than 8.0 metres away from the glazed sliding doors.

Type F Apartments

In order to overcome the Government Architect's concern regarding the depth of the open plan kitchen, dining and living room belonging to the Type F Apartments on the second, third and fourth floor levels, the proponents have commissioned their draftsperson to reduce the distance between this room and the glazed sliding doors by 3.0 metres, from 8.2 metres to 5.2 metres.

Type H Apartments

Although a portion of the kitchen belonging to the Type H Apartments on the first floor level will be close to 10 metres away from the glazed sliding doors, it is important to keep in mind that:

- the kitchen will commence at a distance of 6.6 metres from the glazed sliding doors;
- around half of the kitchen will be within 8.0 metres of the glazed sliding doors;
- the 8.5 square metre opening which leads to the balcony provides, according to Part F4 of the National Construction Code, enough natural light for up to 85 square metres of living space;
- none of these Apartments will exceed 53.1 square metres in area; and
- the core living area and unenclosed bedroom will both be within 6.6 metres of the glazed sliding doors.

In order to demonstrate how much natural light is likely to filter into these Apartments, the proponents have prepared a virtual tour. The virtual tour, which takes viewers on a 360 degree journey, can be accessed via the link below.

http://modelfarm.com.au/clients/citify/colour-07.html

Central Atrium

We note that the Government Architect's ongoing support of the central atrium is contingent upon the "*resolution of the design details to ensure the full delivery of the landscaping ambitions, including effective stormwater drainage.*"

In light of this, we wish to confirm that:

- the proponents' landscape architects have been commissioned to design and construct (they would not, therefore, design anything that they could not construct or implement at a later date); and
- the proponents' civil engineers intend to develop an effective stormwater drainage solution for the central atrium during the detailed design phase of the project, and would not object to the imposition of a condition which captures this undertaking.

With respect to those of the bedroom windows which face the central atrium, it is also important for the Government Architect to note that these window frames, which are presently fitted with obscure glass to a height of 1.5 metres above the finished floor level, have been raised to 1.7 metres above the finished floor level and are now fitted with double glazing to minimise the transfer of noise.

Common Area

The proponents had considered relocating the common area in the north-western corner of the second floor level to the south-western corner of the second floor level but eventually decided against this location, as it would not increase the pool or deck's access to natural light.

The proponents then shifted their consideration to the north-eastern and south-eastern corners of the second floor level but eventually decided against these locations as well, as not only would they not increase the pool or deck's access to natural light but they would unnecessarily expose the prospective residents and their guests to noise and air pollution from Unley Road.

Accordingly, the proponents have decided to leave the common area where it currently is and to:

- fully enclose this space;
- add four skylights directly above the pool; and
- install an operable glass wall on the western side of the spa and deck.

In so doing, the proponents have dealt with overlooking from the recently approved building to the north whilst ensuring that the common area receives direct access to an adequate amount of natural light and ventilation.

Air Conditioning Units

The air conditioning units associated with the studio apartments on the first floor level will be installed within the services room on the first floor level.

The air conditioning units associated with the penthouses on the sixth floor level will be affixed to the roof of the building.

The remaining air conditioning units will be integrated with, and therefore concealed by, the outdoor joinery on the balconies.

Summary

The proponents' willingness to consider and address those comments made by the Government Architect has considerably improved the aesthetic appeal of the proposed development and the level of amenity afforded to the prospective residents and their guests.

If you have any queries or concerns regarding those refinements that have been made, please do not hesitate to contact the undersigned in the first instance.

Yours Sincerely

Fabian Barone
Senior Urban Planner

26 July 2018

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Mr Karl Woehle
Planning Officer – CBD & Inner Metro Team
Strategic Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
Via email: karl.woehle@sa.gov.au

Dear Karl,

RE: DEVELOPMENT APPLICATION 090/M005/18

Thank you for providing a copy of the Department of Planning, Transport and Infrastructure's comments to us.

We note that the Department of Planning, Transport and Infrastructure ('the Department') is not opposed to the proposed development.

We also note that the Department has asserted that queueing on Opey Avenue is expected to increase, and that parking should be banned along both sides of that section of Opey Avenue that is situated between the new access point and the adjacent T – junction.

Mr Thomas Wilson, a qualified and experienced traffic engineer, was commissioned by the proponents to review and subsequently respond to these assertions.

Whilst Mr Wilson's response is enclosed for your consideration, it is most important to note that:

- there already is an annotation on the 'demolition and infrastructure site plan' which confirms that the existing crossover on the western side of Unley Road will be permanently closed, and that the affected portion of the kerb and footpath will be reinstated in accordance with the City of Unley's technical requirements;
- Mr Wilson's previous assessment identified that up to three additional vehicles may turn right onto Unley Road from Opey Avenue during the morning peak hour and that one additional vehicle may turn right onto Unley Road from Opey Avenue during the afternoon peak hour;
- these forecasts, which were based on surveyed turning movements, indicate that the minimal increase in vehicles queuing to turn right onto Unley Road from Opey Avenue would have a negligible effect on the operation of the T – junction in question; and
- the Department's suggestion to ban parking along both sides of Opey Avenue is, according to Mr Wilson, onerous and unnecessary, as Opey Avenue presently accommodates parked vehicles and two-way commercial vehicle movements.

As an aside, we take this opportunity to confirm that the proponents are not opposed to any of the recommended conditions.

If you have any queries or concerns regarding Mr Wilson's response, please do not hesitate to contact the undersigned in the first instance.

Yours Sincerely

Fabian Barone
Senior Urban Planner

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Mr Karl Woehle
Planning Officer – CBD & Inner Metro Team
Strategic Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
Via email: karl.woehle@sa.gov.au

Dear Karl,

RE: DEVELOPMENT APPLICATION 090/M005/18

We have been asked by the proponents, Citify and BFC Pty Ltd, to respond to those written representations which were submitted during the prescribed period of time.

Prior to doing so, we wish to highlight that:

- five 'valid' representations were submitted;
- one of the representors has offered unqualified support to the proposal, two of the representors have offered qualified support to the proposal and two of the representors are opposed to the proposal in its current form; and
- only one of the representors has expressed concern over the height of the mixed use building (this representor resides on the southern (opposite) side of Opey Avenue, some 40 metres to the south-west of the site).

Our response is set out below.

Overdevelopment

It has been asserted by one of the representors that the proposal represents "*an overdevelopment of the site.*"

We do not agree with this assertion for several reasons.

First, a density limit has not been prescribed for this part of the Urban Corridor Zone.

Second, none of the buildings will extend beyond the confines of the 'interface building envelope.'

Third, all of the dwellings will come equipped with more than the recommended amount of internal floor area and private open space.

Fourth, the prospective residents, visitors, tenants and customers will have access to an adequate amount of on-site car parking and more than the recommended amount of on-site bicycle parking.

Fifth, the traffic that is likely to be generated by this development will not, according to Mr Thomas Wilson, a qualified and experienced traffic engineer, have an adverse effect on the surrounding road network.

Building Height

It has been asserted by one of the representors that the mixed use building "*is simply too tall.*"

We do not agree with this assertion for several reasons.

First, the fifth and sixth floor levels will be set back between 28.7 metres and 34.9 metres further than the recommended distance from the boundary that separates the Urban Corridor Zone from the Residential Streetscape (Built Form) Zone. The external walls of the sixth floor level will also be heavily recessed and clad in dark materials so as to ensure that it remains relatively inconspicuous from all angles.

Second, no part of the mixed use building will extend beyond the confines of the 'interface building envelope,' as sought by Principle 13 of the Urban Corridor Zone.

Third, the mixed use building will be 2.55 metres lower than the building which was approved on this site by then Development Assessment Commission in March, 2015. The provisions which applied to that development also apply to this development.

Fourth, the mixed use building will be 2.35 metres lower than the recently approved building on the adjoining allotment to the north of the site.

Fifth, the mixed use building respects its existing low scale context through the provision of a bluestone podium which complies with Principle 8 of High Street (Unley Road) Policy Area 20.

Sixth, the group dwellings and residential flat building will provide for a reasonable transition and gradation from the seven storey mixed use building to the east to the single storey detached dwelling on the adjoining allotment to the west.

Seventh, none of the adjacent habitable room windows or private open spaces will be overlooked or overshadowed to an unreasonable degree.

Eighth, the additional height will allow the proponents to set aside almost the entire first floor level for the affordable housing market. This is something which is rarely seen in a development of this quality and in an area as prestigious as Hyde Park.

Ninth, the Government Architect, who is best qualified to comment on this particular aspect of the proposal, has stated, in writing, that they support the overall height of the mixed use building.

Character

One of the representors appears to be concerned about the effect that the proposal will have on the existing character of the locality.

In response to this representor's concern, it needs to be recognised that:

- Objective 6 of High Street (Unley Road) Policy Area 20, the Policy Area within which the site is located, calls for development that contributes to the desired character of the Policy Area, not the existing character of the Policy Area, as the Policy Area is continuing to undergo significant transformation, as expected;
- the proposal quite clearly contributes in a positive manner to the desired character of the Policy Area, as it anticipates strips like Unley Road being transformed "*into vibrant, intimate and appealing mixed use pedestrian friendly corridors of small scale retail, mixed business and entertainment facilities at ground and lower levels with medium to high density living at upper levels of multi-storey buildings*";
- all three land uses (dwellings, residential flat buildings and shops) are 'envisaged' within this part of the Urban Corridor Zone; and
- the spatial arrangement of those land uses within the mixed use building is also consistent with the desired character of the Policy Area.

Zone Interface

It appears that one of the representors is concerned that commercial vehicles will be driven along that section of the common driveway which runs in an east – west direction.

There will be no need for commercial vehicles to be driven along this particular section of the common driveway. We say this for three reasons.

First, all waste associated with the group dwellings will be collected from Opey Avenue.

Second, all waste associated with the residential flat and mixed use buildings will be collected from that section of the common driveway which runs in a north – south direction.

Third, the common driveway has been designed to allow the private contractor's waste collection vehicle to be driven into the site via Opey Avenue and to be driven out of the site via a free and unrestricted right of way over the common driveway which forms part of the recently approved development on the northern side of the site and connects into the southern side of Hart Avenue.

Apartment Sizes

One of the representors has asserted, in a roundabout way, that the dwellings within the mixed use building are too small.

In order to dispel this assertion, it is appropriate and, in fact, necessary to defer to Council Wide Principle 70 of the most recently consolidated version of the Adelaide (City) Development, as the Unley (City) Development Plan remains silent in this respect.

This Principle advises that:

70 **Medium to high scale residential or serviced apartment development should provide a high quality living environment by ensuring the following minimum internal floor areas:**

(a) studio (where there is no separate bedroom): 35 square metres;

(b) 1 bedroom dwelling/apartment: 50 square metres;

(c) 2 bedroom dwelling/apartment: 65 square metres;

(d) 3+ bedroom dwelling/apartment: 80 square metres plus an additional 15 square metres for every additional bedroom over 3 bedrooms.

The studio apartments, excluding their balconies, will range in size from 42.4 square metres to 53.0 square metres. They will, therefore, exceed the relevant minimum quantitative guideline by 7.4 square metres to 18.0 square metres.

The one bedroom dwellings, excluding their balconies, will range in size from 54.5 square metres to 68.0 square metres. They will, therefore, exceed the relevant minimum quantitative guideline by 4.5 square metres to 18.0 square metres.

The two bedroom dwellings, excluding their balconies, will range in size from 67.0 square metres to 80.4 square metres. They will, therefore, exceed the relevant minimum quantitative guideline by 2.0 square metres to 15.4 square metres.

The three bedroom dwellings, excluding their balconies, will range in size from 89.7 square metres to 161.0 square metres. They will, therefore, exceed the relevant minimum quantitative guideline by 9.7 square metres to 81.0 square metres.

Overlooking

One of the representors appears to be concerned that the dwellings within the mixed use building will overlook the adjacent habitable room windows and private open spaces on the western side of the site.

All of the west-facing balconies will now feature a 1.6 metre high balustrade which consists of a masonry component that is 1.0 metre high, privacy louvres which are 600 millimetres high and designed to sit directly atop the masonry component, and a 300 millimetre bench which should keep the prospective residents and their guests away from the western edge.

These balustrades now strike what we consider to be a satisfactory balance between minimising direct views and ensuring that the prospective residents continue to have a reasonable outlook.

The same representor also appears to be concerned that the outdoor terrace on the western side of the residential flat building will overlook the adjacent habitable room windows and private open spaces on the western side of the site.

In order to minimise overlooking from this location, a 1.7 metre high, obscure glass balustrade will be installed along the northern, southern and western sides of the outdoor terrace in question.

Traffic and Parking

Mr Thomas Wilson, a qualified and experienced traffic engineer, has been commissioned by the proponents to review and subsequently respond to those assertions that have been made in relation to parking and the likely effects of this development on the surrounding road network.

Mr Wilson's response is enclosed for your consideration.

Tree Damaging Activity

It has been asserted by one of the representors that the new trees on the western side of Unley Road and on the northern side of Opey Avenue should be native to Australia.

The proponents propose to plant five new Jacarandas on the western side of Unley Road and four new Jacrandas on the northern side of Opey Avenue. Whilst these trees are not native to Australia, it is important to note that:

- there are currently no 'street trees' on the eastern side of the site;
- the proponents deliberately chose Jacarandas to continue the consistent landscaping theme along the northern side of Opey Avenue; and
- the City of Unley has reviewed the proposal and subsequently advised the Department of Planning, Transport and Infrastructure, in writing, that the 'comprehensive public realm and street tree plan' is positive.

Another of the representors appears to be concerned about the removal of the regulated and significant trees.

Whilst these trees are in a reasonable condition, the proponents' arborist has recommended that they be removed on the basis that:

- they would, if left untouched, significantly impede a form of development that is both reasonable and expected when considered in the context of the Zone's aspirations and the previous approval over this site; and
- if the development were to be designed around the structural root and tree protection zones, the siting of the mixed use building would be completely at odds with the intent and general direction of the Zone (it would also lessen the degree of activation along the ground floor level).

As an aside, it is also important to keep in mind that these trees were approved for removal by the then Development Assessment Commission as part of Development Application 090/M003/15.

Landscaping

One of the representors has asserted that the trees between the group dwellings, the residential flat building and the western boundary of the site should be mature at the time of planting.

This representor will be pleased to know that:

- the Crimson Spires between the group dwellings and the western boundary of the site will be 2.0 metres tall at the time of planting, and are capable of growing to around 6.0 metres in height;
- the Chinese Elms between the residential flat building and the western boundary of the site will also be 2.0 metres tall at the time of planting, and are capable of growing to around 10 metres in height; and
- all of the landscaped areas will be completed prior to the occupation of the group dwellings, the residential flat building and the mixed use building.

Air Conditioning Units

One of the representors would like to know where the air conditioning units will be installed.

It is now clear from the ground floor plan that the air conditioning units belonging to the dwellings within the residential flat building will be installed within the confines of the private courtyards.

It is also now clear from the second floor plan that the air conditioning units belonging to the group dwellings will be roof mounted.

As such, these units are most unlikely to be visible or audible from this representor's property. For clarity, this representor's property abuts the north-western corner of the site and their dwelling, which is orientated to Hart Avenue, only consists of one floor level.

Notwithstanding the above, it remains important to note that all noise generated by fixed domestic machines is governed by the *Environment Protection (Noise) Policy 2007* and closely monitored by the Environment Protection Authority.

Inconvenience During Construction

One of the representors has asserted that the proposal will inconvenience them during the construction phase.

Should the State Commission Assessment Panel be of the mind to grant development plan consent to the proposal, the proponents would not object to the imposition of a condition which requires them to furnish a 'construction management plan' prior to the approved works commencing.

This plan, like most others, would outline the staging, timing and methodology of the construction process.

It would also identify how dust, noise, stormwater, traffic and waste is to be managed.

Summary

We remain of the view, despite the issues that have been raised by the representors, that the proposal warrants development plan consent.

In support of our view, we take this opportunity to highlight that:

- the materials and colours that have been selected for the mixed use building and the group dwellings will complement those within the immediate vicinity of the site;
- the group dwellings, the residential flat building and the mixed use building will all be set back further than the recommended distances from the interface between the Urban Corridor and Residential Streetscape (Built Form) Zones;
- the sixth floor level of the mixed use building will be heavily recessed and clad in dark materials so as to ensure that it remains relatively inconspicuous from all angles;
- the commercial tenancies and outdoor dining area on the ground floor level of the mixed use building will activate and enliven both streetscapes;
- all of the apartments will be rather generous in terms of their size;
- more than the recommended number of bicycle parking spaces will be provided within the confines of the site;
- the key common areas will be neatly landscaped with a suitable selection of trees, shrubs and grasses; and
- the group dwellings, the residential flat building and the mixed use building will all be energy efficient for many years to come.

Given that three of the representors wish to appear before the State Commission Assessment Panel ('the Panel') in relation to this matter, would you kindly confirm the particulars of the forthcoming meeting so that we may respond to them and answer any queries or concerns which the Panel may have.

Yours Sincerely

Fabian Barone
Senior Urban Planner

URBAN CORRIDOR ZONE

Refer to Maps Un/3, 4, 5 and 9 that relate to this zone.

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 and vibrant streets with residential development above.

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 flexible building designs that can accommodate changes in land use and respond to changing economic and social conditions.

Objective 5: 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 6: A safe, comfortable and appealing street environment for pedestrians that is sheltered from weather extremes, is of a pedestrian scale and optimises views or any outlook onto spaces of interest.

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

This zone supports mixed use development on major road corridors and comprises non-residential development in association with medium to high density residential living, including more than 15 percent of dwellings as affordable housing. Development will create a linear corridor that will focus and frame the main road and create active street frontages. Buildings of 3 or more storeys will be the predominant built form, with key strategic sites developed with landmark buildings that will feature prominent, attractive and activating road facades.

The siting and design of buildings will achieve high quality urban design outcomes. Development will be undertaken within defined building envelopes. Buildings at the periphery of the zone will have an appropriate transition that relates to development in adjacent zones of a lower scale and intensity. Contextual qualities, including the setting and juxtaposition of heritage places/character items with new or refurbished development, will be respected.

The urban corridor roads function as major metropolitan transport movement systems as well as for local movement, access and parking. Restricted and consolidated vehicle access points will be available and access will be mainly from secondary road frontages, limited rear access lanes and through-site integrated and shared rights-of-way. Controlled pedestrian and cycle crossing points will be focused and consolidated at key locations. Development design and function will be people orientated with safe and convenient accessibility to and through buildings from roads and parking.

Parking areas will be consolidated and shared and screened from public view. Access and parking are to be sited and designed to minimise negative impacts on adjoining residential areas, including appropriate separation and screen and buffer landscaping. Road treatments are to be provided at the interface of the zone that correspond with the likely associated uses and discourage non-related traffic in residential streets.

A high amenity pedestrian environment will be established that provides integrated linkages to adjacent centres, public transport stops and public spaces. Access for people with disabilities, signage, seating and street lighting will be provided along key walking routes between public transport stops and major activity nodes. Cycle routes will be visible, safe, accessible, well signed and connected with key local destinations and the Parkland fringe.

Overlooking, overshadowing and emission impacts will be moderated through good design and mitigation techniques, however, it is noted noise and air amenity cannot be expected to be equivalent to a purely residential area. Impacts on adjoining zones will be minimised through appropriate land uses, building envelopes, transition of building heights, design and location of on-site activities/windows/balconies, and use of landscaping.

Well-designed landscaping will assist to visually soften large building façades, screen and buffer parking/service areas/zone interface areas, and provide amenity, biodiversity and micro-climate benefits.

Water sensitive urban design (WSUD) for the harvest, treatment, storage and reuse of stormwater, and environmentally sustainable design (ESD) for reduction in energy consumption through passive design, construction and operation is envisaged with development. Green (vegetated) places will assist urban heat island effects and roof top gardens will provide opportunities for private and communal open space.

Given the distinctly different land use mix and urban design features and street character intended for Greenhill Road and Unley Road, the zone is divided into two policy areas:

(a) Boulevard Policy Area – where taller, mixed use buildings of predominantly office uses at ground and low building levels and residential apartments above are intended along the Greenhill Road frontage with its premium Park Land interface where grand buildings and strong landscape settings are appropriate;

(b) High Street Policy Area – where more moderate scaled buildings of mixed use are intended along Unley Road with predominantly small scale shops, mixed business services and hospitality uses at ground and low building levels and upper level comprising residential apartments.

Detailed concept plans are prepared for distinct sections of the roads, detailing matters including desired accessways/road links, excluded property frontage access, variations to prescribed building heights, consolidated sites, heritage sites and any particular intended urban design element or feature.

The potential for buildings within the zone to penetrate the Adelaide International Airport Obstacle Surface Limitation exists. It is essential that development within the zone not impede the long-term operational, safety and commercial aviation requirements of the Adelaide International Airport.

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
- 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 Maps Un/1 to 7.

5 Residential development should achieve a minimum net residential site density in accordance with the following:

Policy Area	**Minimum net residential site density**
Boulevard (Greenhill Road) Policy Area 19	75 dwellings per hectare net (except within the southern half of the Annesley Campus Area fronting Rose Terrace 35 dwellings per hectare net)
High Street (Unley Road) Policy Area 20	60 dwellings per hectare net

6 Vehicle parking should be located to the rear of development or not be visible from public land along the primary road frontage.

Design and Appearance

7 Buildings on sites with a frontage greater than 10 metres should be well articulated through variations in forms, materials, openings and colours.

8 Buildings should be designed and sited to address the primary public road and to face other public thoroughfares (other than rear laneways) and open spaces and to enable suitable sunlight access to public and common private open space as well as good daylighting of habitable room windows of dwellings.

9 To maintain sight lines between buildings and the street, and to improve safety through passive surveillance, solid fencing should not be constructed between the front building line and the primary or secondary street.

10 Development should minimise the number of access points onto an arterial road, and where possible access points should be:

(a) from local streets (including rear lane access) as identified on Concept Plan Maps Un/1 to 7;

(b) shared between developments.

11 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.

Building Envelope

Building Height

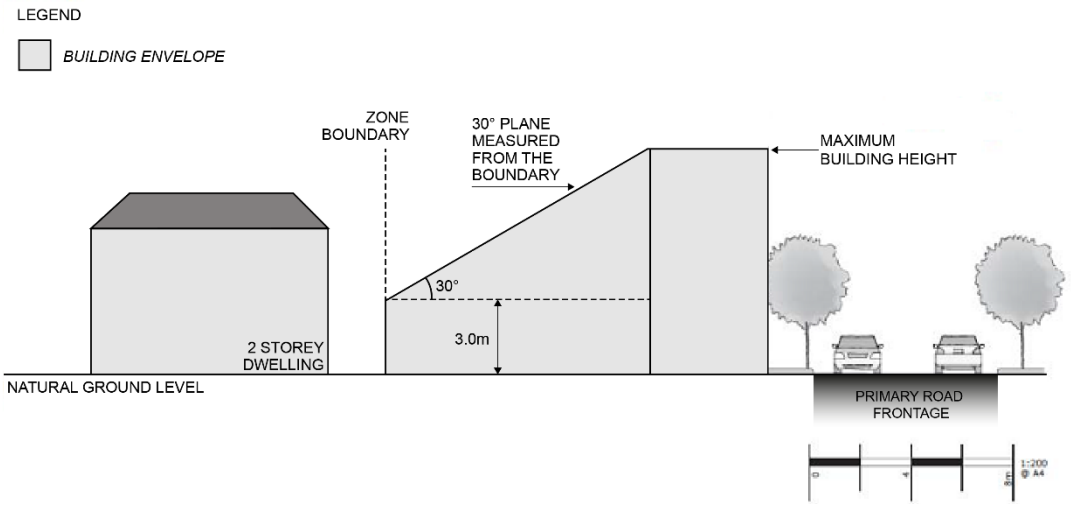
12 Except where airport building height restrictions prevail, the interface height provisions require a lesser height, or an alternative maximum building height is shown on Concept Plan Maps Un/1 to 7, building heights (excluding any rooftop mechanical plant or equipment) should be consistent with the following parameters:

Policy area	Minimum building height	Maximum building height
Boulevard (Greenhill Road) Policy Area 19	3 storeys (11.5 metres), or 4 storeys (15 metres) for land that is directly adjacent to or facing the Adelaide Park Lands.	7 storeys and up to 25.5 metres
High Street (Unley Road) Policy Area 20	3 storeys (11.5 metres)	5 storeys and up to 18.5 metres

Interface Height Provisions

13 To minimise building massing at the interface with development outside of the zone, buildings should be constructed within a building envelope provided by a 30 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



Setbacks from Road Frontages

14 Buildings (excluding verandahs, porticos and the like) should be set back from the primary road frontage (exclusive of any land required under the Metropolitan Road Widening Act) in accordance with the following parameters

Policy area	Minimum setback from the primary road frontage
Boulevard Policy Area	6 metres
High Street Policy Area	No minimum (3 metre maximum setback where extended outdoor dining/licensed area only is proposed forward of the building)

15 Buildings (excluding verandahs, porticos and the like) should be set back from the secondary road frontage or a vehicle access way in accordance with the following parameters:

Designated area	**Minimum setback from secondary road**	**Minimum setback from a rear access way**
Boulevard Policy Area	3 metres	No minimum where the access way is 6.5 metres or more OR 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 Policy Area	0 metres for a distance of 20 metres from the primary road junction and 2 metres thereafter	As above

Other Setbacks

16 Buildings (excluding verandahs, porticos and the like) should be set back in accordance with the following parameters:

Designated area	**Minimum setback from rear allotment boundary**	**Minimum setback from side boundaries (where not on a road boundary)**
Boulevard Policy Area	5 metres where the subject land directly abuts an allotment of a different zone 3 metres in all other cases, except where the development abuts the wall of an existing or simultaneously constructed building on the adjoining land.	For allotments with a frontage width of : (a) 20 metres or less: no minimum to one boundary but at least 3 metres to the other side boundary, with respective setbacks to create an orderly pattern of built form in accord with the Desired Character and desired consolidated sites in Concept Plan Maps Un/1 to 7 (b) more than 20 metres: 3 metres
High Street Policy Area	As above	0 metres

Car Parking Efficiency

17 A lesser on-site car parking rate that still affords adequate provision may be applied to applicable elements of a development where justified based on local circumstances in relation to a reduced overall demand, efficiency of use of the parking provided or practical constraints, where:

(a) amalgamation of allotments occurs, or an agreement is formed to integrate and share adjoining parking areas, to create larger more functional and efficient parking areas incorporating a number of features, as follows:

(i) sites of greater than 2000 square metres and providing greater than 60 parking spaces;

(ii) side road frontage with two-way vehicle access provided;

(iii) convenient flow through two-way vehicle accessibility created between side roads;

(iv) rationalised, minimised or coordinated vehicle crossovers to roads and optimisation of on-street parking;

(b) development includes affordable housing or student accommodation;

(c) sites are located within 200 metres walking distance of a convenient and frequent service fixed public transport stop;

(d) mixed use development including residential and a variety of non-residential development has respective peak demands for parking occurring at different times;

(e) the proposed development is on or adjacent to the site of a heritage place, or includes retention of a desired traditional building and its features, which hinders the provision of on-site parking or the most effective use of the spaces within the building;

(f) the parking shortfall is met by contribution to the Car Parking Contributions Fund, or other arrangements, to provide improved or increased on-site parking elsewhere in convenient proximity;

(g) generous on-street parking and/or public parking areas are available and in convenient proximity, other than where such parking may become limited or removed by the probable future priority for traffic flow, parking restrictions, road modifications or widening (eg Strategic Transport Routes Map Un/1 (Overlay 4)).

Land Division

18 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.

19 Streets that provide rear access for vehicles should be created in accordance with Concept Plan Maps Un/1 to 7.

Vehicle Parking

20 Vehicle parking should be provided in accordance with the rates set out in Table Un/5 - Off Street Vehicle Parking Requirements or Table Un/5A - Off Street Vehicle Parking Requirements for Designated Areas (whichever applies)

PROCEDURAL MATTERS

Complying Development

21 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:

Advertisement subject to the conditions contained in Table Un/1 - Conditions for Complying Development and other than in respect to a Heritage Place identified in Table Un/3 and Table Un/4.

A change of use to a shop, office, consulting room or any combination of these uses where all of the following are achieved:

(a) 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;

(b) the development is located inside any of the following area(s):

- High Street (Unley Road) Policy Area

(c) the building is not a State heritage place;

(d) 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;

(e) if the proposed change of use is for a shop that primarily involves the handling and sale of foodstuffs, it achieves either (i) or (ii):

(i) 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;

(ii) 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;

(f) 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 (i) or (ii):

(i) 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;

(ii) 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;

(g) off-street vehicular parking is provided in accordance with the rate(s) specified in Table Un/5 - Off Street Vehicle Parking Requirements or the desired minimum in rate in Table Un/5A - Off Street Vehicle Parking Requirements for Designated Areas (whichever table applies) to the nearest whole number, except in and one or more of the following circumstances:

(i) the building is a local heritage place;

(ii) 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;

(iii) 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

22 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
Fuel depot
Petrol filling station
Major public service depot
Road transport terminal
Store
Transport depot
Warehouse
Waste reception storage treatment and disposal

Public Notification

23 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
Residential flat building
Retirement village
Supported accommodation

Shop or group of shops:

(a) located within the High Street (Unley Road) Policy Area 17;

(b) located within the Boulevard (Greenhill Road) Policy Area 19 with a gross leasable area of 450 square metres or less

Tourist accommodation

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 that:

(a) is 3 or more storeys, or 11.5 metres or more, in height above natural ground level;

(b) exceeds the maximum building height in the Building Envelope Building Height or Concept Plan Maps Un/1 to 7;

(c) exceeds the Building Envelope Interface Height Provisions.

High Street (Unley Road) Policy Area 20

Refer to Maps Un/14 and 18 that relate to this policy 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 verandahs / awnings over the public footpath and an intimate built scale, with fine-grained detailing of buildings in 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: Development that contributes to the desired character of the policy area.

DESIRED CHARACTER

This policy area includes two sections of the Unley Road corridor either side of the Unley District Centre and extending the full length of the road as far south as Northgate Street from Greenhill Road.

The maintenance of a safe and efficient movement system (for significant private vehicle numbers as well as critical public transport links) needs to be balanced with the desire to transform these strips into vibrant, intimate and appealing mixed use pedestrian friendly corridors of small scale retail, mixed business and entertainment facilities at ground and lower levels with medium to high density living at upper levels of multi-storey buildings.

Some incompatible land uses such as service trade premises, bulky goods outlets, warehousing and workshops need to be progressively replaced or redeveloped such that they are reduced to a minor floor area and/or without public road frontage.

High quality buildings and associated site works are sought which:

(a) improve the comfort, safety, convenience and appeal of the public realm and the pedestrian environment for visitors and residents by creating:

  (i) visually interesting, highly transparent and varied shop fronts and building entries;

  (ii) continuity of verandahs, awnings or canopies to provide shelter and shade;

  (iii) appealing through links to shops and businesses set behind the street frontage and also to ground level and multi-level car parking areas at the rear or underneath buildings;

  (iv) occasional outdoor dining areas extending in part over the public footway and linked to recessed buildings comprising restaurants and licensed premises;

  (v) paving, lighting, tree planting, furniture and amenities in areas to the rear of street fronting buildings and linked to key local movement networks, public reserves and common private spaces;

(vi) parking areas under, behind or within buildings, to ensure ground floor levels match public footpath levels along road frontages and provide for level access and direct interaction to the public realm.

(b) respect the predominant, traditional rhythm of narrow–fronted shop tenancies and the siting, height and street format by:

(i) retaining, adapting and redeveloping existing historic or appealing traditional buildings and developing 'behind' the converted street fronting shop or business facades;

(ii) developing or maintaining a dominant street level podium building form along the main road reflecting the one to two storey shop or commercial parapet façades traditionally associated with this strip and developing the core building element (and any building above 8.5 metres in total building height) offset and setback behind the ground level façade;

(iii) complementing in an innovative and contemporary manner, using modern materials and finishes, the key traditional building and shop-front elements including verandahs, parapet facades, detailed pediments, and clear-glazed narrow shop front displays above raised display levels (base stall boards) and recessed entries;

(iv) developing narrow buildings built side by side so as to create a largely continuous built edge to the street and reflecting the traditional narrow-fronted tenancies by creating varied and distinctive building facades through careful and fine-grained attention to building detailing;

(v) supporting the predominant street boundary setback, and no more than 3 metres (to allow for a wider pedestrian footway and outdoor dining area forward of the building) setback from the main road;

(c) create high quality living environments by:

(a) applying sustainable design solutions to optimise natural ventilation and capture of sun or natural daylight;

(b) optimising resident and visitor safety, convenience and amenity by providing reserved and secure car parks, lighting and surveillance of public and common spaces;

(c) locating and screening goods storage, refuse collection areas in a sensitive manner;

(d) locating and designing sensitive habitable rooms and balconies to optimise the utility of those spaces and minimise noise intrusion.

In order to achieve the desired building design outcome and car parking and access links, it will be necessary for existing small and narrow sites to be amalgamated and their redevelopment co-ordinated.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

1 Development should provide continuity of predominately narrow small ground floor shops, and limited offices and other non-residential land uses along the road corridor at ground level or first floor level, and residential development above.

2 Existing service industries, workshops and storage activities should be removed or redeveloped to reduce these land uses to a minor floor area and not having a public street frontage.

3 Shops or group of shops contained in a single building should have a maximum gross leasable area in the order of 450 square metres (per tenancy).

Form and Character

4 Development should be consistent with the desired character for the policy area.

5 The finished ground floor level should be at grade and level with the footpath.

6 The ground floor of buildings should be built to dimensions including a minimum floor to ceiling height of 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.

7 A minimum of 50 per cent 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.

8 Buildings should maintain a pedestrian scale at street level, and on land identified on Concept Plan Maps Un/1, 2A and 2B,should:

(a) include a clearly defined podium or street wall fronting the High Street (Unley Road) Policy Area 20 main road and side streets where appropriate, of a height consistent with traditional one and two storey facades and no greater than two storeys or 8.5 metres in height;

(b) have levels above the defined podium or street wall setback a minimum of 3 metres from that wall.

10 The integrity and spatial setting of a heritage place, and positive character facades, be respected by adjacent development providing appropriate setbacks, wall heights, format and features, and new and taller building elements being distinctly further setback and of lightweight subservient appearance.

11 Development should be in accordance with Concept Plan Maps Un/1, 2A and 2B.

COUNCIL WIDE

Introduction

The following policies apply across the area within the boundary of the Unley (City) Development Plan, as shown on Map Un/1. This Development Plan has the City-wide Objectives and Principles of Development Control first, and grouped under various headings. These are followed by the individual zones which also have their Objectives and Principles of Development Control. After this are Tables which apply to all zones, and finally the maps, including zone maps.

Reference should be made to all parts of this Development Plan when ascertaining the relevant policies applying to any site.

Crime Prevention

OBJECTIVES

Objective 1: A safe, secure, crime resistant environment where land uses are integrated and designed to facilitate community surveillance.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Development should promote the personal safety of people by:

(a) enabling them to be seen, to see and to interpret their surrounds, through:

(i) adequate lighting;

(ii) clear sightlines;

(iii) the elimination of entrapment spots;

(iv) the design of buildings to overlook public space;

(v) the mixing of activities which facilitate more constant public use;

(vi) appropriate use and design of landscaping and fencing;

(b) enabling them to leave an area or seek assistance when in danger, through legible design and comprehensive signage.

2 Development should promote the security of property by:

(a) clearly defining ownership and legitimate use of private, public and community space

(b) minimising access between roofs, balconies and windows of adjacent buildings;

(c) avoiding the use of materials which are likely to be susceptible to damage and vandalism;

(d) avoiding landscaping and fencing which may present a security risk by providing concealment opportunities;

(e) screen planting and use of prickly plant species in areas susceptible to vandalism.

Design and Appearance

OBJECTIVES

Objective 1: Development of a high design standard and appearance that responds to and reinforces positive aspects of the local environment and built form.

Objective 2: Roads, open spaces, paths, buildings and land uses laid out and linked so that they are easy to understand and navigate.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Buildings should reflect the desired character of the locality while incorporating contemporary designs that have regard to the following:

(a) building height, mass, proportion and siting;

(b) external materials, patterns, colours and decorative elements;

(c) roof form and pitch;

(d) façade articulation and detailing;

(e) verandahs, 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 adjoining properties;

(b) overshadowing of adjoining 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 to the street and adjacent building viewing points (existing or envisaged) and should form an integral part of the building and roof top design in relation to creating an attractive appearance, external finishes 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

9 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

10 Development should minimise direct overlooking of the 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 residents' or neighbours' amenity.

11 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

13 Buildings, landscaping, paving and signage should have a coordinated appearance that maintains and enhances the visual attractiveness of the locality.

14 Buildings should be designed and sited to avoid extensive areas of uninterrupted walling facing areas exposed to public view.

15 Building design should emphasise pedestrian entry points to provide perceptible and direct access from public street frontages and vehicle parking areas.

16 In mixed use and medium and high density residential areas, development facing the street should be designed to provide interesting and pedestrian friendly street frontages 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 reduce massing.

17 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

18 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.

Building Setbacks from Road Boundaries

19 Except in areas where a new character is desired, the setback of buildings from public roads should:

(a) be similar to, or compatible with, setbacks of buildings on adjoining land and other buildings in the locality;

(b) contribute positively to the function, appearance and/or desired character of the locality.

22 Except in areas where a new character is desired or where specified in a zone, policy area or precinct, the setback of development from a secondary street frontage should reflect the setbacks of the adjoining buildings and other buildings in the locality.

23 All setbacks from the road frontage should be additional to the road widening setback established under the *Metropolitan Adelaide Road Widening Plan Act 1972*.

Energy Efficiency

OBJECTIVES

Objective 1: Development designed and sited to conserve energy.

Objective 2: Development that provides for on-site power generation including photovoltaic cells and wind power.

PRINCIPLES OF DEVELOPMENT CONTROL

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

2 Buildings should be sited and designed:

(a) to ensure adequate natural light and winter sunlight is available to the main activity areas of adjacent buildings;

(b) so that open spaces associated with the main activity areas face north for exposure to winter sun;

(c) to allow for cross ventilation and natural cooling of buildings and zoning of building layouts to enable main living room areas to be separately heated and cooled;

(d) to incorporate roof top gardens and green 'living' walls, particularly for multi-storey and large developments, to reduce the 'urban heat island effect';

(e) to use energy efficient building materials or the re-use of existing materials (embodied energy).

On-site Energy Generation

3 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.

4 Public infrastructure and lighting, should be designed to generate and use renewable energy.

Form of Development

OBJECTIVES

Objective 1: Orderly and economic development.

Objective 2: The development of Adelaide as an international and national centre for cooperative research and innovation in science, technology, environmental management, education and the arts.

Objective 3: The establishment of urban development which provides models in the conservation and management of resources and the natural environment and the enhancement of natural site features, in urban planning and the provision of physical and social infrastructure.

A concept that encapsulates the vision of Adelaide as an international city where a wide variety of social and economic activities can occur and which provides models, through research, innovation and the application of technology, in the conservation and management of resources, the natural environment, urban planning community development and the provision of physical and social infrastructure.

The Adelaide economy built on research, education and advanced industries, serviced by advanced infrastructure and be export oriented. The principal industries identified for Adelaide are education, information technology and environmental management. Other important industries are media, leisure, tourism and health.

Objective 4: A proper distribution and segregation of living, working and recreational activities by the allocation of suitable areas of land for those purposes.

In the 21st Century Adelaide's growth will be accommodated through higher densities within the present urban area and development within the Willunga Basin and northern Adelaide Plains. The future form and nature of the existing metropolitan area will be influenced by meeting housing choice in the metropolitan area. Current and anticipated demographic trends in the metropolitan area indicate population growth but a changing population structure, with falling dwelling occupancy rates and declining population in many areas, particularly in the inner and middle suburbs, will necessitate increasing dwelling density to maintain population levels.

While taking these trends into account, there are social, environmental and economic benefits to be gained from higher residential densities within the metropolitan area and in turn this Plan promotes and seeks to implement a policy of housing choice.

It is an essential element in the future development of Adelaide, to address concerns about increased housing demand, efficient use of urban infrastructure and population change. This can be achieved by increasing the number of dwellings that can be accommodated within the existing boundary of the metropolitan area, and arresting and perhaps reversing the decline in population which has been evident in many parts of the metropolitan area.

While these aims are applicable across the metropolitan area, implementation must recognise the particular requirements of residential character and amenity, environmentally sensitive areas, water catchment areas, and other land which is subject to specific hazard or constraint.

Objective 5: Maintenance of the long-term operational, safety and commercial aviation requirements of the Adelaide International Airport and Parafield Airport.

Objective 6: Adequate public parks and recreation areas conveniently located.

Open spaces are needed in a city for outdoor recreation, and all age groups must be catered for. The size of the open spaces must be adequate, and they must be located conveniently for the people who use them.

Objective 7: The City of Unley will be a City that offers its citizens the best of living and working environments.

In the next decade, the City of Unley will be recognised for community spirit, desirable character, and business success in a sustainable and safe environment.

New people and investment growth will bring vibrancy to the City's tapestry of local communities supporting their environment and each other. Unley will be recognised for its social and economic innovations. Citizens will be proud of their environment, their successes and their strength of community well being.

Development will primarily occur on individual sites as compatible, complementary and reinforcing elements within the existing desirable form and character of localities and the City.

PRINCIPLES OF DEVELOPMENT CONTROL

General

1 Development should be in accordance with the Unley Plan, Map Un/1 (Overlay 1) primarily by:

(a) concentrating comprehensive redevelopment and renewal for more intensive mixed activity and housing development along major transport corridors and within/adjacent to key centres and activity hubs;

(b) replacing existing buildings and land uses not contributing to a locality's character within areas of historic and valued streetscape character where revitalisation is warranted;

(c) restoring and conserving valued buildings and streetscape character, including the visual rhythms and patterns created by physical elements in a streetscape including the valued buildings, site proportions, building curtilage, fencing, mature trees and private gardens.

2 Development should be orderly and economic.

3 New housing and other urban development should create a safe, convenient and pleasant environment in which to live.

4 No development, other than residential development and advertisements, should be erected, added to or altered on any land so that any portion of it is constructed nearer to the existing boundary of a road, or to the boundary of any land shown as being required for road widening on the plan deposited under the provisions of the *Metropolitan Adelaide Road Widening Plan Act, 1972-1976*, than the distance prescribed for each road or portion thereof in Column 3 of Table Un/2.

Building Heights Adjacent to Airports

10 Buildings and structures should not adversely affect by way of their height and location the long term operational, safety and commercial aviation requirements of Adelaide International Airport and Parafield Airport.

11 Buildings and structures which exceed the heights shown on Map Un/1 (Overlay 2) and which penetrate the obstacle limitation surfaces (OLS) should be designed, marked or lit to ensure the safe operation of aircraft within the airspace around the Adelaide International Airport and Parafield Airport.

Interface Between Land Uses

OBJECTIVES

Objective 1: Development located and designed to minimise adverse impact and conflict between land uses.

Objective 2: Protect community health and amenity from adverse impacts of development.

Objective 3: Protect desired land uses from the encroachment of incompatible development.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Development should not detrimentally affect the amenity of the locality or cause unreasonable interference through any of the following:

(a) the emission of effluent, odour, smoke, fumes, dust or other airborne pollutants

(b) noise

(c) vibration

(d) electrical interference

(e) light spill

(f) glare

(g) hours of operation

(h) traffic impacts.

2 Development should be sited and designed to minimise negative impacts on existing and potential future land uses desired in the locality.

3 Development adjacent to a **Residential Zone** should be designed to minimise overlooking and overshadowing of adjacent dwellings and private open space.

4 Residential development adjacent to non-residential zones and land uses should be located, designed and/or sited to protect residents from potential adverse impacts from non-residential activities.

5 Sensitive uses likely to conflict with the continuation of lawfully existing developments and land uses desired for the zone should be designed to minimise negative impacts.

6 Non-residential development on land abutting a residential zone should be designed to minimise noise impacts to achieve adequate levels of compatibility between existing and proposed uses.

Noise Generating Activities

7 Development that emits noise (other than music noise) should include noise attenuation measures that achieve the relevant *Environment Protection (Noise) Policy* criteria when assessed at the nearest existing noise sensitive premises.

8 Development with the potential to emit significant noise (e.g. industry) should incorporate noise attenuation measures that prevent noise from causing unreasonable interference with the amenity of noise sensitive premises.

9 Outdoor areas (such as beer gardens or dining areas) associated with licensed premises should be designed or sited to minimise adverse noise impacts on adjacent existing or future noise sensitive development.

10 Development proposing music should include noise attenuation measures that achieve the following desired noise levels:

Noise level assessment location	**Desired noise level**
Adjacent existing *noise sensitive development* property boundary	Less than 8 dB above the level of background noise ($L_{90,15min}$) in any octave band of the sound spectrum and Less than 5 dB(A) above the level of background noise ($LA_{90,15min}$) for the overall (sum of all octave bands) A-weighted level
Adjacent land property boundary	Less than 65dB(Lin) at 63Hz and 70dB(Lin) in all other octave bands of the sound spectrum or Less than 8 dB above the level of background noise ($L_{90,15min}$) in any octave band of the sound spectrum and 5 dB(A) overall (sum of all octave bands) A-weighted level

Air Quality

11 Development with the potential to emit harmful or nuisance-generating air pollution should incorporate air pollution control measures to prevent harm to human health or unreasonable interference with the amenity of sensitive uses within the locality.

12 Chimneys or exhaust flues associated with commercial development (including cafes, restaurants and fast food outlets) should be designed to ensure they do not cause a nuisance or health concerns to nearby sensitive receivers by:

(a) incorporating appropriate treatment technology before exhaust emissions are released to the atmosphere

(b) ensuring that the location and design of chimneys or exhaust flues maximises dispersion and takes into account the location of nearby sensitive uses.

Landscaping

OBJECTIVES

Objective 1: The amenity of land and development enhanced with appropriate planting and other landscaping works, using locally indigenous plant species where possible.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Landscaping of development should:

(a) be provided to soften the appearance of built form;

(b) complement the scale of the built form;

(c) be consistent with any particular desired character or important contextual features of the landscape setting in the locality;

(d) define spaces and edges;

(e) provide microclimate benefits such as shade and shelter;

(f) retain existing landscaping, where practicable;

(g) use species and techniques that require low water use and support and enhance local biodiversity;

(h) enhance the appearance of development, establish visual buffers to adjacent development and screen service, loading, outdoor storage and parking areas.

2 Landscaping should not:

(a) unreasonably restrict solar access to habitable rooms and solar collection areas in adjoining development;

(b) be likely to cause structural damage or impact upon adjoining development through root damage and canopy drop;

(c) remove opportunities for passive surveillance to public areas;

(d) promote concealment and the potential for criminal activities adjacent to footpaths and public activity areas;

(e) introduce environmental weeds to sensitive environmental areas.

Medium and High Rise Development (3 or More Storeys)

OBJECTIVES

Objective 1: Medium and high rise development that provides housing choice and employment opportunities.

Objective 2: Residential development that provides a high standard of amenity and adaptability for a variety of accommodation and living needs.

Objective 3: 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 4: Development that integrates built form within high quality landscapes to optimize amenity, security and personal safety for occupants and visitors.

Objective 5: 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.

Objective 6: Commercial, office and retail development that is designed to create a strong visual connection to the public realm and that contributes to the vitality of the locality.

Objective 7: Buildings designed and sited to be energy and water efficient.

PRINCIPLES OF DEVELOPMENT CONTROL

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

1 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.

2 In repetitive building types, such as row housing, the appearance of building facades should provide some variation, but maintain an overall coherent expression such as by using a family of materials, repeated patterns, facade spacings and the like.

3 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.

4 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 facades.

5 Buildings should reinforce corners through changes in setback, materials or colour, roof form or height.

6 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, and avoiding painted surfaces particularly above ground level.

7 Balconies should be integrated into the overall architectural form and detail of the development and should:

(a) utilise sun screens, pergolas, louvres and openable walls to control sunlight and wind;

(b) be designed and positioned to respond to daylight, wind, and 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

8 Development facing the street should be designed to provide attractive, high quality 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, where consistent with the zone and/or policy area provisions;

(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, semi-basement and above ground parking does 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 pedestrian areas.

9 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.

10 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.

11 To contribute to direct pedestrian access and street level activation, the finished ground level of buildings should be no more than 1**.**2 metres above the level of the footpath, except for common entrances to apartment buildings which should be at ground level or universally accessible.

12 Dwellings located on the ground floor with street frontage should have individual direct pedestrian street access.

13 The visual privacy of ground floor dwellings within multi-storey buildings should be protected through the use of design features such as the 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 levels for multi storey residential developments to be raised by up to 1.2 metres (provided access is not compromised where relevant).

Building Separation and Outlook

14 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 may 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.

15 Living rooms should have a satisfactory short range visual outlook to public or private open space.

Dwelling Configuration

16 Buildings comprising more than 10 dwellings should provide a variety of dwelling sizes and a range in the number of bedrooms per dwelling.

17 Dwellings located on the ground floor with street frontage should have habitable rooms with windows overlooking the street or public realm.

18 Dwellings with 3 or more bedrooms, should, where possible, have the windows of habitable rooms overlooking internal courtyard space or other public space.

Adaptability

19 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. by including floor to ceiling heights suitable for commercial use).

Environmental

20 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).

21 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.

22 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.

23 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/ 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 < less than 4 metres canopy spread		
Medium tree:	6-12 metres mature height and 4-8 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		

24 Deep soil zones should be provided with access to natural light to assist in maintaining vegetation health.

Site Facilities and Storage

25 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.

26 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 to detract from the visual appearance of the ground floor.

27 Where the number of bins to be collected kerbside is 10 or more at any one time, provision should be made for on-site commercial collection.

28 The size of lifts, lobbies and corridors should be sufficient to accommodate movement of bicycles, strollers, mobility aids and visitor waiting areas.

Zone Interface

29 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 to 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 of 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.

Natural Resources

OBJECTIVES

Objective 1: Retention, protection and restoration of the natural resources and environment.

Objective 2: Protection of the quality and quantity of South Australia's surface waters, including inland, and underground waters.

Objective 3: The ecologically sustainable use of natural resources including water resources, ground water, surface water and watercourses.

Objective 4: Natural hydrological systems and environmental flows reinstated, and maintained and enhanced.

Objective 5: Development consistent with the principles of water sensitive design.

Objective 6: 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;

(g) protect stormwater from pollution sources.

Objective 7: Storage and use of stormwater which avoids adverse impact on public health and safety.

Objective 8: Native flora, fauna and ecosystems protected, retained, conserved and restored.

Objective 9: Restoration, expansion and linking of existing native vegetation to facilitate habitacorridors for ease of movement of fauna.

Objective 10: Minimal disturbance and modification of the natural landform.

Objective 11: Protection of the physical, chemical and biological quality of soil resources.

Objective 12: Protection of areas prone to erosion or other land degradation processes from inappropriate development.

Objective 13: Protection of the scenic qualities of natural and rural landscapes.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Development should be undertaken with minimum impact on the natural environment, including air and water quality, land, soil, biodiversity, and scenically attractive areas.

2 Development should ensure that South Australia's natural assets, such as biodiversity, water and soil, are protected and enhanced.

3 Development should not significantly obstruct or adversely affect sensitive ecological areas such as creeks, wetlands.

4 Development should be appropriate to land capability and the protection and conservation of water resources and biodiversity.

Water Sensitive Design

5 Development should be designed to maximise conservation, minimise consumption and encourage reuse of water resources.

6 Development should not take place if it results in unsustainable use of surface or underground water resources.

7 Development should be sited and designed to:

(a) capture and re-use stormwater, where practical;

(b) minimise surface water runoff;

(c) prevent soil erosion and water pollution;

(d) protect and enhance natural water flows;

(e) protect water quality by providing adequate separation distances from watercourses and other water bodies;

(f) not contribute to an increase in salinity levels;

(g) avoid the water logging of soil or the release of toxic elements;

(h) maintain natural hydrological systems and not adversely affect:

(i) the quantity and quality of groundwater;

(ii) the depth and directional flow of groundwater;

(iii) the quality and function of natural springs.

8 Water discharged from a development site should:

(a) be of a physical, chemical and biological condition equivalent to or better than its pre-developed state;

(b) not exceed the rate of discharge from the site as it existed in pre-development conditions.

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

10 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.

11 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.

12 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.

13 Stormwater management systems should preserve natural drainage systems, including the associated environmental flows.

14 Stormwater management systems should:

(a) maximise the potential for stormwater harvesting and re-use, either on-site or as close as practicable to the source;

(b) utilise, but not be limited to, one or more of the following harvesting methods:

(i) the collection of roof water in tanks;

(ii) the discharge to open space, landscaping or garden areas, including strips adjacent to car parks;

(iii) the incorporation of detention and retention facilities;

(iv) aquifer recharge.

15 Where it is not practicable to detain or dispose of stormwater on site, only clean stormwater runoff should enter the public stormwater drainage system.

Renewable Energy

OBJECTIVES

Objective 1: The development of renewable energy facilities, such as wind and biomass energy facilities, in appropriate locations.

Objective 2: Renewable energy facilities located, sited, designed and operated to avoid or minimise adverse impacts and maximise positive impacts on the environment, local community and the State.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Renewable energy facilities, including wind farms, should be located, sited, designed and operated in a manner which avoids or minimises adverse impacts and maximises positive impacts on the environment, local community and the State.

2 Renewable energy facilities, including wind farms, and ancillary developments should be located in areas that maximise efficient generation and supply of electricity.

3 Renewable energy facilities, including wind farms, and ancillary development such as substations, maintenance sheds, access roads and connecting power-lines (including to the National Electricity Grid) should be located, sited, designed and operated in a manner which:

(a) avoids or minimises detracting from the character, landscape quality, visual significance or amenity of the area;

(b) utilises elements of the landscape, materials and finishes to minimise visual impact;

(c) avoids or minimises adverse impact on areas of native vegetation, conservation, environmental, geological, tourism or built or natural heritage significance;

(d) does not impact on the safety of water or air transport and the operation of ports, airfields and designated landing strips;

(e) avoids or minimises nuisance or hazard to nearby property owners/occupiers, road users and wildlife by way of:

(i) shadowing, flickering, reflection and blade glint impacts;

(ii) noise;

(iii) interference to television and radio signals;

(iv) modification to vegetation, soils and habitats; and

(v) bird and bat strike.

Residential Development

OBJECTIVES

Objective 1: Safe, convenient, sustainable and healthy living environments.

Objective 2: Preservation and enhancement of the existing character within historic conservation and streetscape character zones and policy areas through contextual design and conservation measures that promotes the retention of buildings and the sensitive re-development, alterations, additions and adaptive re-use of buildings.

Objective 3: Higher dwelling densities yielded from sensitive and well designed residential infill and comprehensive residential redevelopment of selected living areas outside those zones or policy areas of identified historic conservation and streetscape character.

Objective 4: A diversity of housing to meet the needs and preferences of the community.

Objective 5: Residential areas free of incompatible uses and activities.

PRINCIPLES OF DEVELOPMENT CONTROL

Design and Appearance

1 The design and appearance of buildings and their surrounds should respect the contextual qualities of the locality and be consistent with the desired character for the zone or policy area and therefore should have regard to:

(a) site dimensions and configurations;

(b) street and boundary setbacks;

(c) site coverage;

(d) private and communal open space;

(e) building form, scale, mass and height;

(f) building orientation to public streets;

(g) building facades and detailing;

(h) roof form and pitch;

(i) fences, walls and landscaping;

(j) overlooking and overshadowing;

(k) noise;

(l) access and car parking;

(m) site facilities and storage.

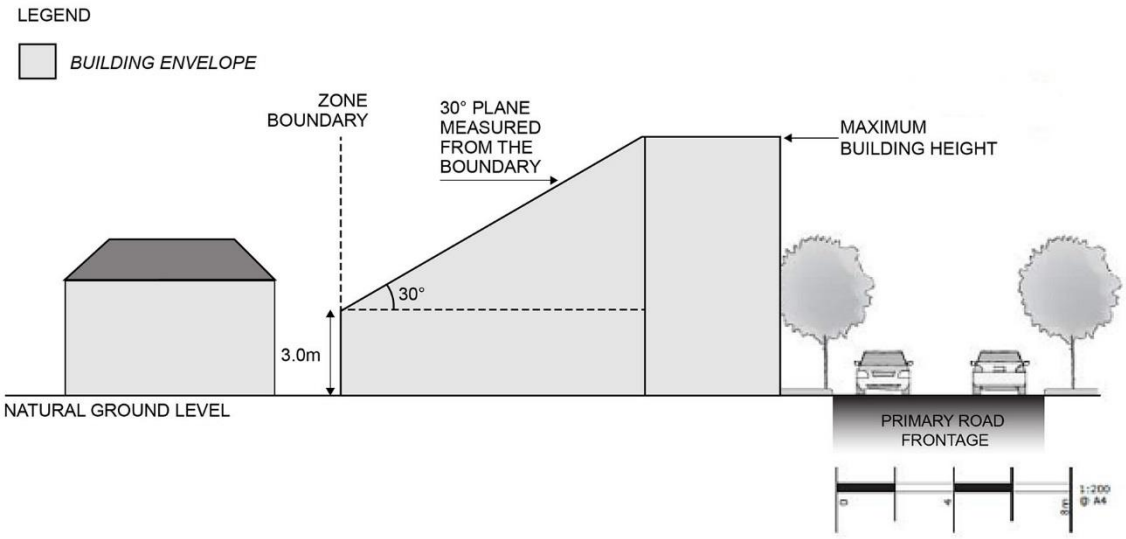
Building Form, Scale, Mass and Height

General

23 Building form, scale, mass and height should be compatible with development in the locality and in particular the desired character and built form parameters for the zone or policy area.

24 Development should be sited and designed to minimize negative visual impacts on existing and potential future land uses that are considered appropriate in the locality.

25 To minimise impacts at the interface with lower scale sensitive development, buildings of 3 storeys or more (or heights greater than 7 metres) should be constructed within a building envelope provided by a 30 degree plane, measured from a height of 3 metres above ground level (of the adjoining affected land) at the zone or Policy Area boundary (except where this boundary is the primary road frontage), as illustrated in **Figure 1**:



Overlooking

38 Direct overlooking from upper level (above ground floor level) habitable room windows and external balconies, roof patios, terraces and decks to habitable room windows and useable private open space of other dwellings should be minimised through adoption of one or more of the following:

(a) building layout;

(b) location and design of windows, balconies, roof patios and decks;

(c) screening devices;

(d) adequate separation distances;

(e) existing landscaping and supplementary screen tree planting.

39 To maintain a reasonable level of visual privacy to adjacent residential properties the following measures are sought:

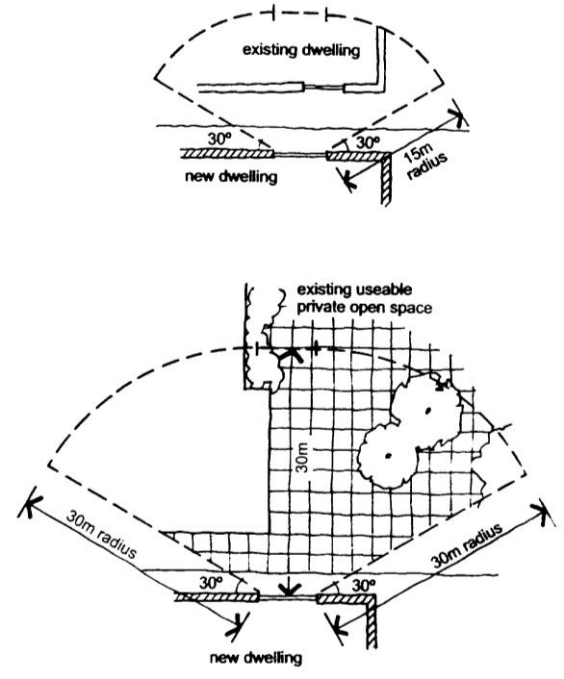
(a) orientate and stagger windows and upper level viewing areas to prevent direct views into adjoining property indoor and outdoor living areas;

(b) obscure viewing by raising window sills or incorporating obscure glass windows to a height at least 1.7 metres above floor level;

(c) use permanently fixed external screening devices such as screens, fences, wing walls, panels, planter boxes or similar measures adequate to restrict 120 degree views;

(d) provide a separation distance of 15 metre radius to windows of habitable rooms in potentially impacted dwellings and 30 metre radius to private open space as described in the Figure below;

(e) incorporate plants capable of providing and seasonally sustaining a privacy screen.



Area likely to be primarily affected by overlooking from upper level windows, balconies and decks.

Overshadowing and Natural Light

41 Development should allow direct winter sunlight access to adjacent residential properties and minimise the overshadowing of:

(a) living room windows, wherever practicable;

(b) the majority of private open space areas, communal open space and upper level balconies that provide the primary open space provision;

(c) roof areas, preferably north facing and suitable for the siting of at least 4 solar panels on any dwelling;

or where such affected areas are already shaded, the additional impact should not significantly worsen the available sunlight access.

42 To ensure an adequate level of daylight and outlook, light wells and similar devices should not be relied on as the primary source of daylight for habitable rooms.

Transportation (Movement of People and Goods)

OBJECTIVES

Objective 1: Control the movement of traffic within the city having regard to a hierarchy of roads in order to ensure compatibility between development adjacent to roads and the position of the road in the hierarchy.

The following arterial roads are of primary importance to metropolitan traffic movement:

Anzac Highway;
Cross Road;
Glen Osmond Road;
Greenhill Road; and
South Road.

The following arterial roads supplement the above arterial roads in catering for metropolitan traffic movement, but are of secondary importance to the above roads in this role:

Fullarton Road;
Goodwood Road; and
Unley Road.

The following major collector roads carry a small component of through traffic particularly during peak periods. Traffic restraint is necessary due to the impacts upon adjacent land use arising from through traffic on the road:

Duthy Street;
George Street;
East Avenue/Leah Street/Leader Street; and
King William Road/Northgate Street/Victoria Avenue.

The following roads have a local crossing/collector function in that:

(a) they fulfil a need to subdivide a local traffic area because, in one dimension at least, the area is too large to be reasonably circumnavigated by intra-suburban traffic; and/or

(b) distribute traffic between the arterial roads and the local street system:

Albert Street;
Arthur Street (Unley);
Ferguson Avenue;
Fisher Street;
Forest Avenue;
Mills Street;
Mitchell Street;
Park Street;
Victoria Street; and
Wattle Street.

All other local streets and roads have a main function of providing access to abutting property and are not designed to facilitate through traffic movement.

Objective 2: A network of roads, paths and tracks, to accommodate satisfactorily a variety of vehicular, cycle and pedestrian, traffic.

Objective 3: A safe and efficient vehicular and pedestrian movement system.

Objective 4: Safe and easy movement of pedestrians across arterial roads.

Objective 5: A comprehensive, integrated, and efficient, public and private transport system which will:

(a) provide access to adequate transport services for all people, at an acceptable cost;

(b) effectively support the economic development of metropolitan Adelaide and the State;

(c) ensure a high level of safety; and

(d) maintain the options for the introduction of suitable new transport technologies.

Objective 6: A compatible arrangement between land uses and the transport system which will:

(a) ensure minimal noise and air pollution;

(b) protect amenity of existing and future land uses;

(c) provide adequate access; and

(d) ensure maximum safety.

Objective 7: A form of development adjoining main roads which will:

(a) ensure traffic can move efficiently and safely;

(b) prevent large traffic-generating uses outside designated shopping/centre zones;

(c) provide for adequate off-street parking; and

(d) provide limited and safe points of access and egress.

Objective 8: A high degree of visibility at intersections for drivers of motor vehicles entering arterial roads.

Objective 9: The retention of all present road reserve widths in the city, other than in respect of arterial roads.

Due to the magnitude of impacts that road widening has upon properties abutting roads affected by these actions, widening of arterial roads should only take place where detailed investigations of both local and regional needs indicate such widening is desirable.

Objective 10: Non-local traffic utilizing the arterial road system, and not local streets.

Objective 11: Development located and designed to direct traffic away from local crossing/collector roads and local streets, and the improvement of the environment of these classes of streets.

Objective 12: A co-ordinated and integrated bicycle movement system which complements other vehicles movement systems.

Objective 13: Off-street parking areas able to cater for the demands of existing and proposed development in Office, Mixed Use and Centre Zones.

The main elements of the transport system are shown on Map Un/1 (Overlay 1).

PRINCIPLES OF DEVELOPMENT CONTROL

General

1 Development adjacent to every road and street should conform with the objectives relating to movement of people and goods and be compatible with the hierarchy of roads shown on Map Un/1 (Overlay 1).

2 Where traffic control works, public works or facilities are required as a direct result of a development, the cost of such works or facilities should be borne by the developer.

3 Development should:

(a) provide safe and convenient access for private cars, cyclists, pedestrians, service vehicles, emergency vehicles and public utility vehicles;

(b) include access points located and designed in such a way as to minimise traffic hazards, vehicle queuing on public roads and intrusion of vehicles into adjacent residential areas; and

(c) provide off-street loading, service and vehicle manoeuvring areas.

4 The number, location and design of access points onto the arterial roads shown on Map Un/1 (Overlay 1) should be such as to minimise traffic hazards, queuing on the roads, right turn movements and interference with the function of intersections, junctions and traffic control devices.

Cycling and Walking

5 Development should ensure that a permeable street and path network is established that encourages walking and cycling through the provision of safe, convenient and attractive routes with connections to adjoining streets, paths, open spaces, schools, pedestrian crossing points on arterial roads, public and community transport stops and activity centres.

6 Development should provide access, and accommodate multiple route options, for pedestrians and cyclists by enhancing and integrating with:

(a) open space networks, recreational trails, parks, reserves, and sport and recreation areas;

(b) Adelaide's principal cycling network (Bikedirect), which includes arterial roads, local roads and off-road paths.

7 New developments should give priority to and not compromise existing designated bicycle routes.

8 Where development coincides with, intersects or divides a proposed bicycle route or corridor, development should incorporate through-access for cyclists.

9 Development should encourage and facilitate cycling as a mode of transport by incorporating end-of-journey facilities including:

(a) showers, changing facilities and secure lockers

(b) signage indicating the location of bicycle facilities

(c) bicycle parking facilities provided at the rate set out in Table Un/6 – Off-street Bicycle Parking requirements for Mixed Use, Corridor and District Centre Zones.

10 On-site secure bicycle parking facilities should be:

(a) located in a prominent place;

(b) located at ground floor level;

(c) located undercover;

(d) located where surveillance is possible;

(e) well lit and well signed;

(f) close to well used entrances;

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

11 Pedestrian and cycling facilities and networks should be designed and provided in accordance with relevant provisions of the *Australian Standards and Austroads Guides*.

Access

12 Development should have direct access from an all-weather public road.

13 Development should be provided with safe and convenient access which:

(a) avoids unreasonable interference with the flow of traffic on adjoining roads

(b) provides appropriate separation distances from existing roads or level crossings

(c) accommodates the type and volume of traffic likely to be generated by the development or land use and minimises induced traffic through over-provision

(d) is sited and designed to minimise any adverse impacts on the occupants of and visitors to neighbouring properties.

14 Development should not restrict access to publicly owned land such as recreation areas.

15 The number of vehicle access points onto arterial roads shown on Strategic Transport Routes Map Un/1 (Overlay 4) should be minimised and, where possible, access points should be:

(a) limited to local roads (including rear lane access)

(b) shared between developments.

16 Development with access from arterial roads or roads as shown on Strategic Transport Routes Map Un/1 (Overlay 4) should be sited to avoid the need for vehicles to reverse onto or from the road.

17 Structures such as canopies and balconies that encroach onto the footpath of an arterial road should not cause visual or physical obstruction to:

(a) signalised intersections

(b) heavy vehicles

(c) street lighting

(d) overhead electricity lines

(e) street trees

(f) bus stops.

18 Driveways, access tracks and parking areas should be designed and constructed to:

(a) follow the natural contours of the land

(b) minimise excavation and/or fill

(c) minimise the potential for erosion from surface runoff

(d) avoid the removal of existing vegetation

(e) be consistent with Australian Standard AS 2890 Parking facilities.

Parking Area - Design, Location and Provision

19 Development should provide sufficient off-street parking to accommodate resident, visitor, customer, employee, and service vehicles.

20 Off-street vehicle parking should be in accordance with Table Un/5 Off Street Vehicle Parking Requirements.

21 Car parking areas should:

(a) be located and designed in such a way as to ensure safe and convenient pedestrian access from vehicles to facilities; safe and convenient traffic circulation; include adequate provision for manoeuvring into and out of parking bays, and, in the case of centre-type development, result in minimal conflict between customer and service vehicles; and

(b) be designed so as to obviate the necessity for vehicles to back onto public roads.

22 Individual parking areas should, wherever possible, be so located and designed that:

(a) vehicular movement between them does not require the use of public roads; and

(b) the number of access points is minimised.

23 Development should provide the opportunity for the shared use of car parking and integration of car parking areas with adjacent development so as to reduce the total extent of car parking areas.

24 Development providing 25 or more car parking spaces should provide at least one car parking space in every 25 spaces for the use of the disabled, up to a maximum of five spaces. (See Table Un/5).

25 Parking for the disabled should be allocated and located within a short distance and convenient to major building entrances, ramps and other pedestrian access facilities useable by disabled people.

Vehicle Parking for Mixed Use, Corridor and District Centre Zones

26 Development should provide off-street vehicle parking and specifically marked accessible car parking places to meet anticipated demand.

27 Loading areas and designated parking spaces for service vehicles should:

(a) be provided within the boundary of the site;

(b) not be located in areas where there is parking provided for any other purpose.

28 Vehicle parking spaces and multi-level vehicle parking structures within buildings should:

(a) enhance active street frontages by providing land uses such as commercial, retail or other non-car park uses along ground floor street frontages;

(b) complement the surrounding built form in terms of height, massing and scale;

(c) incorporate facade treatments along major street frontages that are sufficiently enclosed and detailed to complement neighbouring buildings consistent with the desired character of the locality.

29 In mixed use buildings, the provision of vehicle parking may be reduced in number and shared where the operating hours of commercial activities complement the residential use of the site.

Undercroft and Below Ground Garaging and Parking of Vehicles

30 Undercroft and below ground garaging of vehicles should only occur where envisaged in the relevant zone or policy area or precinct and ensure:

(a) the overall height and bulk of the undercroft structure does not adversely impact on streetscape character of the locality or the amenity of adjacent properties;

(b) vehicles can safely enter and exit from the site without compromising pedestrian or cyclist safety or causing conflict with other vehicles;

(c) driveway gradients provide for safe and functional entry and exit;

(d) driveways and adjacent walls, fencing and landscaping are designed to provide adequate sightlines from vehicles to pedestrians using the adjacent footpath;

(e) openings to undercroft areas are integrated with the main building so as to minimise visual impact;

(f) landscaping, mounding and/or fencing is incorporated to improve its presentation to the street and to adjacent properties;

(g) the overall streetscape character of the locality is not adversely impaired (e.g. visual impact, building bulk, front setbacks relative to adjacent development).

31 In the case of undercroft and below ground car parks where cars are visible from public areas, adequate screening and landscaping should be provided.

Parking Area - Screening and Landscaping

32 Landscaping should be provided and maintained in order to screen, shade and enhance the appearance of car parking areas. To this end, grade level car parking areas should not be located closer than two metres to the street alignment and 1.2 metres to the common boundary of adjoining property located within a residential zone.

33 To allow for adequate landscaping and screening, below ground level parking areas should:

(a) be set-back from property boundaries a distance which is the lesser of the building set-back or:

(i) in the case of the primary road frontage, six metres;

(ii) in the case of the secondary road frontage, three metres; and

(iii) in the case of other boundaries, two metres;

(b) ensure that the finished ground floor level of the building does not exceed a height of 1.3 metres, when measured from the lowest point of existing natural ground level on the site;

(c) incorporate earth mounding or raised ground levels in the landscaping areas and/or screening structures adjacent to any opening between ground level and the underside of the building; and

(d) be designed to comply with Australian Standard 2890.1 (Off Street Parking).

Waste

OBJECTIVES

Objective 1: 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.

Objective 2: 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.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Development should be sited and designed to prevent or minimise the generation of waste (including wastewater) by applying the following waste management hierarchy in the order of priority as shown below:

(a) avoiding the production of waste;

(b) minimising waste production;

(c) reusing waste;

(d) recycling waste;

(e) recovering part of the waste for re-use;

(f) treating waste to reduce the potentially degrading impacts;

(g) disposing of waste in an environmentally sound manner.

2 The storage, treatment and disposal of waste materials from any development should be achieved without risk to health or impairment of the environment.

3 Development should avoid as far as practical, the discharge or deposit of waste (including wastewater) onto land or into any waters (including processes such as seepage, infiltration or carriage by wind, rain, sea spray, stormwater or by the rising of the water table).

4 Untreated waste should not be discharged to the environment, and in particular to any water body.

5 Development should include appropriately sized area to facilitate the storage of receptacles that will enable the efficient recycling of waste.

6 Development that involves the production and/or collection of waste and/or recyclable material should include designated collection and storage area(s) that are:

(a) screened and separated from adjoining areas;

(b) located to avoid impacting on adjoining sensitive environments or land uses;

(c) designed to ensure that wastes do not contaminate stormwater or enter the stormwater collection system;

(d) located on an impervious sealed area graded to a collection point in order to minimise the movement of any solids or contamination of water;

(e) protected from wind and stormwater and sealed to prevent leakage and minimise the emission of odours;

(f) stored in such a manner that ensures that all waste is contained within the boundaries of the site until disposed of in an appropriate manner.

OVERLAYS

Overlay – Affordable Housing

Refer to Map Un/1 (Overlay 5) that relates to this overlay. The following policies apply to the 'designated area' marked on the relevant Overlay Map.

INTERPRETATION

Where the Objectives and/or Principles of Development Control that apply in relation to this overlay are in conflict with the relevant General Objectives and/or Principles of Development Control in the Development Plan, the overlay will prevail.

OBJECTIVES

Objective 1: Affordable housing that is integrated into residential and mixed use development.

Objective 2: Development that comprises a range of affordable dwelling types that caters for a variety of household structures.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Development comprising 20 or more dwellings should include a minimum of 15 percent affordable housing (as defined by the *South Australian Housing Trust Regulations 2010* as amended).

Overlay – Strategic Transport Routes

Refer to Map Un/1 (Overlay 4) that relates to this overlay. The following policies apply to the 'designated area' marked on the relevant Overlay Map.

INTERPRETATION

Where the Objectives and/or Principles of Development Control that apply in relation to this overlay are in conflict with the relevant General Objectives and/or Principles of Development Control in the Development Plan, the overlay will prevail.

OBJECTIVES

Objective 1: Development that recognises the importance of strategic transport routes and does not impede traffic flow or create hazardous conditions for pedestrians, cyclists or drivers of vehicles, including emergency services vehicles.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Development adjacent to a strategic transport route should:

(a) avoid the provision of parking on the main carriageway;

(b) be accessible via service roads, where possible, that provide:

(i) parking off the main carriageway;

(iii) a buffer from the main carriageway for pedestrian and cycle activity;

(c) not impede the potential for overhead cabling and associated infrastructure to be established in an existing or proposed tram corridor.

2 Vehicular site access should not be provided along the main street frontage where an alternative access is available.

3 Development adjacent kerbside bus stops should be set back to provide sufficient space for indented bus bays with associated hard stand area, shelter and a 1.2 metre wide continuous accessible path behind the bus shelter.

Overlay – Noise and Air Emissions

Refer to Maps Un/1 (Overlay 3) and (Overlay 3A) that relate to this overlay. The following policies apply to the 'designated area' marked on the relevant Overlay Map.

INTERPRETATION

Where the Objectives and/or Principles of Development Control that apply in relation to this overlay are in conflict with the relevant General Objectives and/or Principles of Development Control in the Development Plan, the overlay will prevail.

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.