Feasible Developments Pty Ltd

Demolition of existing dwellings and construction of nine (9) storey mixed use development comprising retail and cafe tenancies, residential apartments and associated basement and ground-level car parking

200-202 Anzac Highway, Plympton

211/M020/18

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OVERVIEW

Application No	211/M020/18
Unique ID/KNET ID	#13070550 / 2018/16085/01
Applicant	Feasible Developments Pty Ltd
Proposal	Demolition of existing dwellings and construction of nine (9) storey mixed use development comprising retail and café tenancies, residential apartments and associated basement and ground-level car parking
Subject Land	200-202 Anzac Highway, Plympton
Zone/Policy Area	Urban Corridor Zone, Boulevard Policy Area 34
Relevant Authority	State Commission Assessment Panel
Lodgement Date	20 July 2018
Council	City of West Torrens
Development Plan	West Torrens (Council) consolidated 12 July 2018
Type of Development	Merit
Public Notification	Category 1
Referral Agencies	Government Architect, Commissioner of Highways and Secretary of the Department of Transport, Regional Development and Cities (Adelaide Airport Limited)
Report Author	Ben Scholes, Project Officer
RECOMMENDATION	Development Plan Consent subject to conditions

EXECUTIVE SUMMARY

The applicant seeks approval for demolition of a pair of existing single storey dwellings for construction of a nine (9) storey mixed-use development comprising retail and café tenancies, residential apartments and associated basement and ground-level car parking and landscaping.

The proposal is a merit, Category 1 kind of development that triggers statutory referrals to the Government Architect, the Commissioner of Highways, and Adelaide Airport Limited.

The proposal is largely consistent with envisaged land uses within the Urban Corridor Zone, although at 9 storeys and 32.7 metres in height the building would marginally exceed the Zone's maximum recommended scale and height (by 1 storey and 200mm).

The GA recommends further review to deliver a more coherent architectural expression and side boundary setbacks, however the current proposal is considered to align with policy expectations for design quality and transformation in the locality's built form.

The proposal is expected to provide suitably high level of residential amenity complemented by non-residential uses at ground floor. Shortfalls in minimum recommended quantities of private open space and on-site car parking would be substituted with communal spaces or offset by shared use parking, on-street parking and nearby public transport services.

Overall the development is considered an appropriate response to Development Plan policy and is likely to reinforce the Zone and Policy Area's role in providing a carefully designed medium-rise mixed-use developments configured to maintain the function of Anzac Highway.

Conditional Development Plan consent is recommended, in accordance with agency recommendations to ensure technical matters are suitably addressed.

ASSESSMENT REPORT

1. BACKGROUND

1.1 Strategic Context

On 25 June 2015 the Minister for Planning approved the second stage of the Housing Diversity Development Plan Amendment (DPA) which sought changes to future form and character of some parts of the West Torrens Council area by identifying areas suitable for medium and high-density mixed-use development, and introducing new character policy areas to better protect locations with desirable residential character.

The new policy provided for a maximum recommended building height of 8 storeys for the subject land within the new Urban Corridor Zone, whereas previous policy envisaged a maximum height of 3 storeys in this location. On 19 December 2017 the Minister for Planning approved the Inner and Middle Metropolitan Corridor (Design) DPA introducing new policy intended for medium-scale development to:

- improve design quality and integration with nearby low-scale development
- provide better outcomes for local streetscapes and the public realm; and
- improve the form and appearance of new development.

1.2 Pre-Lodgement Process

The applicant engaged with the Department of Planning, Transport and Infrastructure (DPTI)'s pre-lodgement service from September 2017 to April 2018 participating in 2 pre-lodgement panel meetings and 1 design review panel meeting. Agency and Council feedback contributed to improvements to site access, design quality, architectural expression and occupant amenity, however some concerns remained in relation to the:

- shortfall of on-site car parking;
- inadequate setbacks from side boundaries;
- balcony dimensions resulting in diminished functionality; and
- potential for crane operations penetrating prescribed airspace during construction.

2. DESCRIPTION OF PROPOSAL

The application is for demolition of 2 single storey dwellings and construction of a 9-storey mixed use building comprising commercial and café tenancies at ground floor, basement and ground level car parking, 8 levels of residential apartments and associated communal spaces including and a rooftop garden area. Application plans are contained in **Attachment 1** and a summary of the proposal is provided in the following table:

Land Use Description	Basement and ground floor car parking, ground floor commercial and café tenancies, 75 upper level residential apartments and associated communal spaces
Building Height	9 storeys (32.7 metres above ground)
Description of levels	**Basement**: car parking (63 spaces including 16 car stacker units), bicycle parking and store room **Ground**: Residential apartment entry lobby, commercial tenancies and café with alfresco dining, car parking (22 spaces), toilet facilities, resident and visitor bicycle parking areas, rubbish and recycling storage area, landscaping and services infrastructure (SAPN transformer)

	Levels 1-2: 11 residential apartments (1 x 1 bedroom dwelling, 9 x 2 bedroom dwellings and 1 x 3 bedroom dwelling), plant and equipment and utility / storage area **Level 3**: 10 residential apartments (1 x 1 bedroom dwelling, 8 x 2 bedroom dwellings and 1 x 3 bedroom dwelling), plant and equipment, utility / storage area and landscaped rooftop terrace **Levels 4-5**: 10 residential apartments (1 x 1 bedroom dwelling, 8 x 2 bedroom dwellings and 1 x 3 bedroom dwelling), plant and equipment and utility / storage area **Levels 6**: 9 residential apartments (1 x 1 bedroom dwelling, 7 x 2 bedroom dwellings and 1 x 3 bedroom dwelling), plant and equipment, utility / storage area and landscaped rooftop terrace **Level 7**: 9 residential apartments (1 x 1 bedroom dwelling, 7 x 2 bedroom dwellings and 1 x 3 bedroom dwelling), plant and equipment and utility / storage area **Level 8**: 5 residential dwellings (1 x 1 bedroom dwelling, 3 x 2 bedroom dwellings, 1 x 3 bedroom dwelling), plant and equipment, utility / storage area, function area with kitchen and bar, recreation area and lounge with wine storage room, toilet facilities and landscaped terraces **Rooftop**: operable louvre roof, lift overrun
Apartment floor area (excluding balconies)	1 bedroom apartments: 53m^2 2 bedroom apartments: varies between 70m^2 and 78m^2 3 bedroom apartments: 97m^2
Private Open Space	1 bedroom apartments: 11.5m^2 2 bedroom apartments: varies between 8.8m^2 and 21.5m^2 3 bedroom apartments: varies between 16m^2 and 35m^2
Site Access	Single (dual lane) vehicle access point to Anzac Highway
Car and Bicycle Parking	63 basement level car spaces (utilising car stacker system) 22 ground floor car parks 26 bicycle parking spaces

3. SITE AND LOCALITY

3.1 Site Description

The site consistent of 2 irregularly shaped contiguous allotments located on the southern side of Anzac Highway, formally described as follows:

Lot No	Plan No	Street	Suburb	Hundred	Title
A2	D29643	Anzac Highway	Plympton	Adelaide	5167/321
A63	F8115	Anzac Highway	Plympton	Adelaide	5720/177

The site has an overall frontage to Anzac Highway of approximately 44.5 metres and comprises approximately 1,870m^2 in total area with varying allotment depths of roughly 34 metres to the east and 53 metres to the west. The land is generally flat.

Each allotment comprising the subject land currently contains one single storey dwelling with associated fencing and landscaping. Single lane vehicle driveways exist

along each allotment's western boundary, and single storey residential development surrounds the site to the east and south with a converted dwelling used as consulting rooms located to the west.

AdelaideMetro Bus Stop No.8 is located at the Anzac Highway frontage and currently caters for various bus services between the City and Marion. 2 mature Claret Ash trees are located on either side of the bus stop, each recognised as having Local heritage significance.

Figure 1 – Location Map

3.2 Locality

Anzac Highway generally characterises the locality with 3-lane north and south-bound roadways including bicycle lanes separated by a landscaped median with various mature and semi-mature tree species and lawn, complemented by established street trees along each side of the roadway.

A signalised intersection of Anzac Highway and Beckman/Gray Streets is located approximately 55 metres to the northeast with pedestrian actuated crossings at each corner of the intersection.

Clearways established for the morning and evening peak hour periods are signposted along much of the Highway's length in this area. High frequency public transport services are available along Anzac Highway (bus) and at the Beckman Street tram stop located roughly 530 metres (walking distance) to the south.

Single storey residential development predominates the Highway's south side in this location, whereas a mix of single storey dwellings and multi-storey residential flat buildings exists on the north side including the 3 to 5-storey Sorrento Meridian Apartments at 197-201 Anzac Highway, the 9-storey Tower Apartments at 203 Anzac Highway and a 3-storey block of units at 205 Anzac Highway.

A more recent 3-storey residential flat building has been developed to the southwest at 214 Anzac Highway, and another pair of 3-storey developments are under construction on opposites sides of the roadway at Nos. 221 and 222-224 Anzac Highway, Plympton.

4. STATUTORY REFERRAL BODY COMMENTS

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

4.1 Commissioner of Highways

The Commissioner has no in-principle objection to the design and location of the proposed single (dual-lane) access point to and from Anzac Highway, as it would be sufficiently offset from the existing U-turn slot in the Anzac Highway median minimising the likelihood of dangerous manoeuvres being attempted.

The Commissioner emphasises the need for the Panel to be satisfied with the proposed on-site car parking provision including the availability of visitor/customer car parking. A series of conditions have been recommended to ensure safe vehicle movement to and from the development, all of which are incorporated in the recommendation.

4.2 Adelaide Airport

The application has been assessed and at a height of 32.7 metres above ground (50.7m AHD) which would penetrate Adelaide Airport's Obstacle Limitation Surfaces (OLS, protected airspace for aircraft operations) by approximately 2.2 metres.

The application will require approval in accordance with the *Airports Act 1996* and the *Airports (Protection of Airspace) Regulations 1996* and has been forwarded to the Department of Infrastructure, Regional Development and Cities for assessment.

Should the development receive planning consent, any associated lighting would need to conform to airport lighting restrictions and be shielded from aircraft flight paths. Crane operations associated with any approved construction would also be subject to separate assessment and approval by Federal authorities.

4.3 Government Architect

The Government Architect (GA) reviewed application details, acknowledging the lodged scheme addresses a number of the issues and concerns raised during the design review stage.

The GA considers an over-height proposal could be supported as the site offers a unique opportunity for a proposal of this scale, subject to approval of relevant airspace authorities. Support has been offered for:

- non-residential tenancies at the ground floor;
- consolidation of vehicle access to one driveway maximising the extent of public realm;
- integration of services infrastructure to overall built form;
- articulation of the single storey masonry podium responding to scale and materiality of existing buildings in the surrounding context;
- provision of a consolidated plant enclosure on each apartment floor level;
- provision of natural light and ventilation to communal circulation spaces and generous lobby areas;
- provision of terrace edge planting to manage instances of overlooking to the south;
- provision of basement car parking including car stackers; and
- emphasis given to public realm contribution and the integrated outcome envisaged.

While the GA indicated in-principle support for the development of the site for medium-density residential apartments, the following improvements were also recommended:

- increasing side boundary setbacks to respond to the pattern of existing and future envisaged streetscape;
- further refinement to built form composition and architectural expression to achieve a distinctive and sculptural built form;
- review of straight-edged projections to deliver a coherent architectural expression with a reduction in apparent mass;
- review of balcony layouts to provide high quality residential amenity for all apartments;
- development of an alternative overlooking management strategy for type 7 apartments (to replace full height balcony louvres);
- greater separation between doorways to 2 southern-most apartments on Levels 1-2;
- strengthened connection between the ground floor lobby and stairs to upper floors;
- review of apartment layouts to include a waste area on each floor;
- development of the landscaping strategy including technical requirements to sustain integrated soft landscaping; and
- provision of an external material sample board of selected materials and finishes.

The applicant has responded to the GA's views by making minor changes and providing justification for the submitted design as discussed in Section 8.

5. COUNCIL COMMENTS

5.1 City of West Torrens

An informal referral to the City of West Torrens was issued on 27 July 2018. At its meeting of 7 August 2018, the full Council resolved to:

> *"…write to the State Commission Assessment Panel and the Minister for Planning, expressing strong opposition to the development application lodged at 200-202 Anzac Highway, on the basis that it exceeds the maximum height of 8 storeys specified in the approved Development Plan."*

Council administration subsequently provided the above advice and additional comments identifying various concerns summarised as follows:

- podium dimensions and absence of side boundary setbacks at ground floor would result in visual impacts especially when viewed from neighbouring property;
- overshadowing impacts would be excessive and inconsistent with the Development Plan's General Section policy;
- storage space for each dwelling should be directly accessible from the floor on which the dwelling is located;
- affordable housing outcomes are strongly encouraged to meet the Development Plan's Affordable Housing overlay;
- ramp sections at basement and ground levels would not meet the Australian Standard grade of 1 in 16 required for car parking spaces;
- small-rigid vehicles nominated for waste collection are not considered available for use in South Australia, and alternative use of typical medium-rigid vehicles would conflict with 2 car parking spaces and a number of columns;

- car parking shortfall of up to 9 spaces (for visitors) would occur; shared parking arrangement and other factors are unlikely to assist in meeting peak parking demand;
- pedestrian sightlines at the exit driveway would be obstructed by the existing fence of adjacent property (204 Anzac Highway); the proposed driveway would need to be relocated 2 metres to the east to meet the sightline requirement;
- the proposed car stacker system would be supportable subject to the applicant confirming the system can operate without requiring the prior removal of a parked vehicle, and that the system can accommodate sports utility vehicles; and
- bicycle parking for visitors at the rear of the development should be relocated to a more visible and convenient location.

The applicant has responded to the Council's comments with additional information and design amendments as discussed throughout Section 8.

6. PUBLIC NOTIFICATION

As a form of development that would be ancillary and in association with residential development, the application is a Category 1 development pursuant to the Procedural Matters established for the Urban Corridor Zone within the West Torrens Council Development Plan consolidated 12 July 2018. No public notification was required.

7. POLICY OVERVIEW

The subject site is within the Urban Corridor Zone, Boulevard Policy Area 34 as described within the West Torrens Council Development Plan Consolidated 12 July 2018. Relevant planning policies are contained in **Attachment 7** and are summarised below.

Figure 3 – Zoning Map

7.1 Boulevard Policy Area 34

Key policy expectations within the Boulevard Policy Area are summarised as follows:

- development will take place at medium and high-densities, at a scale that is proportionate to the width of Anzac Highway;

- buildings of up to 8-storeys will have a strong presence to Anzac Highway. At lower levels, buildings will have a human scale through the use of design elements such as balconies, verandas and canopies;
- short front setbacks along Anzac Highway will allow for some landscaping to contribute to a more open landscaped character;
- podium elements, where higher floors of the building are set back further than lower level floors, may be used to improve air quality (through greater air circulation)and enhance solar access, privacy and outlook for building occupants and neighbours;
- on-site vehicle parking will not be visible from Anzac Highway by locating parking areas behind building façades and shielding under croft parking areas with landscaping and articulated screens.

7.2 Urban Corridor Zone

Key policy expectations within the Urban Corridor Zone are summarised as follows:

- a mix of medium and high-density residential development with community and employment land uses is envisaged;
- new buildings will be recognised for design excellence and demonstrate careful building articulation and fenestration, verandas, balconies, canopies and landscaping;
- the greatest height, mass and intensity of development will be focussed at the main road frontage (buildings of 3 or more storeys being the predominant built form) with vehicle access to allotments occurring via rear access ways and secondary road frontages where possible;
- large scale development in the zone should establish areas of communal and public open space, and create links with existing movement patterns and destinations;
- impacts on adjoining zones where development is lower in scale and intensity will be minimised through transition of building heights and setbacks, judicious design and location of windows and balconies; and
- overlooking, overshadowing and noise impacts will be moderated through careful design.

7.3 Council Wide

The Development Plan generally encourages new buildings sited in appropriate locations featuring a high standard of design and appearance which reinforce positive aspects of the local environment.

Relevant General Section policies relate to maintaining the integrity of the transport network, building height restrictions for aircraft operations, adequate vehicle parking, design and appearance, interface with the public realm and sensitive land uses, stormwater management and environmental sustainability.

7.4 Overlays

7.4.1 Affordable Housing

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

7.4.2 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.*

7.4.3 Adelaide Airport Building Heights

The subject land is located within Airport Building Height Zone C. Structures exceeding 15 metres above existing ground level should not be developed unless a safety analysis determines that the building/structure does not pose a hazard to aircraft operations.

7.4.4 Strategic Transport Routes

Anzac Highway is identified as a Major Traffic and Cycling Route, a Primary Freight Route and a High Frequency Public Transport Route in the DPTI publication "A Functional Hierarchy for South Australia's Land Transport Network". Each side of Anzac Highway in this location is categorised as a strategic transport routes designated area.

8. PLANNING ASSESSMENT

The application has been assessed against the relevant provisions of the West Torrens Council Development Plan consolidated 12 July 2018, which are contained in Appendix 8.

8.1 Quantitative Provisions

	Development Plan Guideline	Proposed	Guideline Achieved	Comment
Minimum Net Residential Site Density	100 dwellings per hectare net	Approximately 400 dwellings per hectare (equivalent)	YES ☒ NO ☐ PARTIAL ☐	
Building Height	8 storeys and up to 32.5 metres	9 storeys (32.7 metres above ground)	YES ☐ NO ☒ PARTIAL ☐	Refer to Section 8.3
Apartment Size	1 b/r dwelling: 50m^2 2 b/r dwelling: 75m^2 3+ b/r dwelling: 100m^2	1 b/r dwelling: 53m^2 2 b/r dwelling: between 70m^2 and 78m^2 3 b/r dwelling: 97m^2	YES ☐ NO ☐ PARTIAL ☒	Refer to Section 8.6
Private Open Space	1 b/r dwelling: 8m^2 2 b/r dwelling: 11m^2 3 b/r dwelling: 15m^2 Minimum dimension of 2 metres, directly accessible from a habitable room	1 b/r dwelling: 11.5m^2 2 b/r dwelling: varies between 9m^2 and 21.5m^2 3 b/r dwelling: varies between 16m^2 and 35m^2	YES ☐ NO ☐ PARTIAL ☒	Refer to Section 8.6
Storage	8m^3 per dwelling	Minimum of 8m^3 per dwelling	YES ☒ NO ☐ PARTIAL ☐	
Car Parking	1 b/r dwelling: 0.75 spaces (x6) 2 b/r dwelling: 1 space (x59) 3 b/r dwelling: 1.25 spaces (x10) Office/café: 3 spaces per 100m^2 (x9.9) Visitors: 1 per 4 dwellings (18.75) 104 – Council	85 parking spaces	YES ☐ NO ☐ PARTIAL ☒	Refer to Section 8.9

Bicycle Parking	1 per 4 dwellings (residents) 1 per 10 dwellings (visitors) 1 per 200/300m^2 leasable floor area 28 spaces overall	26 spaces	YES ☐ NO ☐ PARTIAL ☒	Refer to Section 8.9
Front Setback	3 metres	Between 2.23 and 4 metres	YES ☐ NO ☐ PARTIAL ☒	
Rear Setback	No minimum	2 metres	YES ☒ NO ☐ PARTIAL ☐	
Side Setback	3 metres	No side boundary setback at ground level	YES ☐ NO ☒ PARTIAL ☐	Refer to Section 8.4

8.2 Land Use and Character

The Zone will accommodate a mix of medium and high-density residential development with community and employment land uses along Anzac Highway. Residential development other than detached dwellings will assist in achieving the desired transformation of the Policy Area, which anticipates mixed-use buildings with non-residential development at ground and residences above.

The proposal includes a mix of dwelling types over Levels 1-8 and 3 ground floor commercial tenancies comprising approximately 330m^2 in floor area with an alfresco dining area servicing the proposed café use at the development's northwest corner.

Commercial uses would conceal on-site parking proposed at ground level and the basement, and planting along the Anzac Highway frontage at ground and first floor levels would contribute to the landscaped character sought in the Policy Area.

Although no affordable housing would be included in the development the applicant suggests there would be potential for the 8 single bedroom apartments to provide affordable residential offerings, although this quantity would fall short of the 15 percent minimum sought by the Affordable Housing Overlay. Nonetheless, the proposed mix of uses is considered suitable for this location and sufficiently accords with applicable land use and character policy.

8.3 Building Height

The Development Plan recommends buildings of up to 8 storeys (and 32.5 metres) with a strong presence to Anzac Highway, framing the streetscape at a scale that is proportionate to the roadway's width. At 9 storeys and 32.7 metres above ground the proposal would marginally exceed the recommended maximum scale and vertical dimension, an outcome which the West Torrens Council strongly opposes.

The GA has indicated that an over-height proposal could be supported as the subject land's size and location offers a unique opportunity for a proposal of this scale, subject to approval by airspace authorities and provided the development's visual bulk would be successfully mitigated.

At the height proposed, the building would penetrate protected airspace for aircraft operations by approximately 2.2 metres and assessment by the Civil Aviation Safety Authority and the Department of Infrastructure, Regional Development and Cities is underway.

Adelaide Airport Limited has informally indicated it is generally comfortable with the building height proposed and the proposed construction methodology involving two-stage erection of the apartment tower and the use of lightweight cross-laminated

timber panelling using truck-mounted cranes to minimise encroachments into protected airspace during construction in coordination with the Airport's operations.

Overall, the 200mm departure sought from the Development Plan's building height policy is not considered unacceptable in recognition of the Policy Area's general expectation for substantial height and scale for this location combined with the applicant's ambition for high standard of architectural design and appearance.

8.4 Design and Appearance

Buildings in the Urban Corridor Zone will be recognised for design excellence to contribute to the envisaged built form transformation in key locations of the Council Area by creating an interesting pedestrian environment and human scale. Incorporation of a clearly defined podium, upper level setbacks and articulation of forms, materials, openings and colours are recommended to realize the anticipated design outcomes.

The development would be composed of a single-storey masonry podium element to be built to each side boundary with curved brickwork edges and openings framing entrances to ground floor commercial tenancies.

8 levels of residential apartments above the podium would be characterised by a horizontal expression of curved balconies and balustrades integrated with the architectural form and setback between 2.6 and 3 metres from side boundaries, with greater separation between boundaries and the building's northeast and southwest façades.

Building elevations would be composed with perforated steel and digitally printed glass balustrades, horizontal sections of aluminium louvres, lightweight black cladding, timber soffits and integrated planters with landscaping pronounced at the podium's upper edge as visualised below.

Figure 4 – Anzac Highway elevation

The curvilinear and horizontal emphasis would generally continue over all facades, interrupted by vertical features formed by recessed window insets, an expressed stair core and floor-to-ceiling window walls at the 3 endpoints of the upper floor lobby.

The development has been designed to transition in height and scale at its southern corner where the extent of the residential levels would recede to the north at levels 3 and 6 in a deliberate effort to moderate impacts of mass, scale, overshadowing and overlooking.

It should be noted that interface policy recommending development contained within a building envelope to protect sensitive development outside the Zone does not apply to the subject land, which is not directly adjacent a separate residential Zone.

The GA supports the applicant's ambition to create a distinctive and sculptural form, but considers the vertically expressed projections at the south and east elevations emphasise the building's height and would be at odds with the design intent for a horizontal expression, recommending review of straight-edged projections to deliver a coherent architectural expression and reduce the building's apparent mass.

The applicant does not share the GA's view, asserting the vertical elements would add visual interest and built form articulation complementing the primarily horizontal expression at the Anzac Highway frontage which returns around portions of the northeast and southwest elevations. The applicant submits that the primary architectural mass is well-managed with a combination of horizontal and vertical elements, with the former being more dominant and sculptural in nature.

The applicant considers the absence of side boundary setback at ground level to be justifiable as this outcome is envisaged under Urban Corridor Zone PDC 19 for allotments of less than 20 metres in width and recommended only for site frontages exceeding 20 metres, indicating the locality's future character anticipates a mix of setback conditions.

In response to other concerns raised by the GA, the applicant has amended south-facing louvre screening to type 7 apartments to provide partial screening to the adjacent type 8 apartments to improve occupant amenity, provided dedicated areas for waste storage on each apartment floor level and indicated a willingness to adhere to conditions related to provision of final details of external materials and landscaping.

The proposal is considered to provide a suitably high standard of design quality reinforced by the following features which respond positively to Development Plan policy and generally have the GA's support:

- clearly defined single-storey masonry podium contributing to human scale and responding to context and setting;
- integration of built form, landscaping and services infrastructure providing uninterrupted engagement with the public realm;
- ground floor commercial tenancies with permeable, active frontages and 4.3 metre floor-to-ceiling height conducive to future adaptability; and
- car parking areas screened from public view including basement car parking.

Identified deficiencies are not considered to significantly lessen the standard of design presented and the recommendation for further refinement of architectural expression, although encouraged, ought not be considered essential as the current proposal aligns with policy expectations for high design quality and transformation in the locality's built form. Overall and in light of the GA's measured support, the proposal's design and appearance are considered acceptable and appropriate for this location.

8.5 Interface

Urban Corridor Zone policy encourages moderation of overshadowing, overlooking and noise impacts through careful design. Impacts on adjoining Zones where development is lower in scale and intensity will be minimised through transition of building heights

and setbacks, judicious design and location of windows and balconies, and the use of landscaping.

Shadow diagrams included in application details demonstrate a significant extent of overshadowing of adjoining and adjacent property to the southeast, south and southwest during the winter solstice, with relatively limited shadowing of immediately adjacent property likely to occur during summer months.

The Council considers the expected overshadowing impact to be excessive in the case of the development at 204 Anzac Highway (currently used as veterinary consulting rooms) and inconsistent with General Section policy advocating for residential development designed to enable direct winter sunlight to dwellings and private open space. Council also suggests the proposed podium would introduce a visually imposing structure when viewed from neighbouring properties, particularly beyond the site's northwest boundary.

The built form transition at the site's southern corner discussed earlier and depicted below demonstrate the applicant's intent to limit impacts on nearby land and, notwithstanding the 200mm departure sought from the recommended maximum building height, the development would be expected to exert a substantially greater overshadowing impact had the applicant chosen to omit this transition feature.

Figure 5 – Built form transition at southern boundary

Mass and scale impacts at ground floor would be moderated by upper level setbacks exceeding the recommended side boundary separation distance combined with the use of integrated screening and landscaping to reduce potential for overlooking and soften the structure's appearance and at immediate interfaces.

On account of the future character anticipated within the Zone and Policy Area and the design strategies applied to manage overlooking and overshadowing, the predicted interface conditions are considered acceptable and well within the limits envisaged by applicable policy.

8.6 Occupant Amenity

General Section policy advocates development designed to provide a high standard of amenity and environmental performance through access to natural light, ventilation and outlook, adequate storage area and private open space and adaptability to meet changing living needs.

Proposed dwellings would provide a mix of living options incorporating private open space and storage areas that would generally meet or exceed minimum recommend areas with minor shortfalls in apartment sizes for some 2 and 3-bedroom dwelling types and private open space for a pair of 2-bedroom dwellings.

Due to their curvilinear design, several of the proposed balconies would not satisfy the 2 metre depth recommended by Residential Development PDC 23, although all would achieve a minimum depth 1.35 metres which would increase along their length and all would be directly accessible from a habitable room.

Shortfalls in balcony dimensions would be compensated by generous communal spaces in the form of 5 landscaped outdoor terraces over Level 3 (88m^2), Level 6 (129m^2) and Level 8 (168m^2), the latter accessible from internal function and recreation areas, meeting the intent of Residential Development PDC 24 which contemplates substitution of private open space with functional communal open space.

The GA has endorsed the provision of natural light and ventilation to communal circulation spaces and generous lobby areas, but recommends greater separation between doorways to the 2 southern-most apartments on Levels 1-2 and a strengthened connection between the ground floor lobby and stairs to upper floors.

Council noted the shortfall of 1 storage unit on Levels 1-2 and the need for occupants to travel to an upper level/s to access their unit, suggesting storage for each dwelling should be directly accessible from the floor on which the dwelling is located.

The applicant has responded to these views by maintaining the level of convenience and amenity offered by the ground floor lobby and stair entry sequence, apartment doorway and storage arrangements are appropriate, as they would provide opportunities for social interaction and are within the expectations of Development Plan policy.

Horizontal full-height louvres integrated with south-facing balconies for apartment type 7 have been relocated to partially screen views from the adjacent apartment balcony as discussed earlier, to more evenly balance the need for internal amenity and potential for overlooking.

Overall and despite discrepancies in minimum recommended dimensions for some apartment types and balconies, the development would offer a suitable level of resident and occupant amenity complemented by substantial offerings of communal open space with associated function and recreation areas, and is expected to meet the needs of building occupants in accordance with relevant Development Plan policy.

8.7 Public Realm

The Zone anticipates a safe, comfortable and appealing street environment for pedestrians that is sheltered from weather extremes, is of a pedestrian scale and optimises views and outlook onto spaces of interest.

The applicant engaged Jensen Plus to prepare a landscaping strategy which proposes exposed aggregate paving and a variety of groundcovers, shrubs and advanced tree species in low board-formed concrete planter beds at the ground floor frontage to frame entry points to the development's commercial tenancies, alfresco dining area and residential lobby.

The colonnade between the podium and ground floor façades would provide opportunities for shelter along the building's full extent, substituting for a projecting canopy. Mass planting of star jasmine along the first floor podium would be encouraged to spill over the parapet and soften the building edge, which in combination with the would contribute to the open and landscaped character sought within the Policy Area.

The combination of building setback and landscaping treatments would contribute to spatial extent of public realm adjacent the existing footpath and substantially improve the pedestrian experience in this vicinity.

The GA strongly supports the emphasis given to public realm contribution and the engagement of the landscape consultant to achieve the envisaged integrated outcome, recommending full resolution of the strategy including details of technical requirements to ensure the landscape ambition of the proposal can be realised. Council's concerns related to obstruction of sightlines between pedestrians and vehicles exiting the western access point caused by the existing fence are noted and discussed in the following section.

The proposed improvements to the public realm are considered positive responses to Development Plan policy and would appropriately complement the built form transformation desired in this location by moderating the increase in scale and mass along the ground plane.

8.8 Traffic Impact, Access and Parking

Development Plan policy provides guidance on the importance of maintaining the function of strategic transport routes by minimising new access points onto arterial roads and managing vehicle congestion. Emphasis is placed on development that ensures convenience of movement and safety for pedestrians, cyclists and motorists alike, whilst providing adequate provision for off-street vehicle parking.

The applicant engaged Auswide Consulting to undertake a Traffic and Parking Impact Assessment including consideration of site access, on-site vehicle parking and analysis of consequential traffic impacts against road network conditions. Auswide's findings are summarised in the following sections.

8.8.1 Site Access

A dual-lane crossover to Anzac Highway to the west of the subject land would provide vehicle access beneath the podium and a vine-covered pergola leading to on-site parking on ramped decks at ground floor and a basement level, concealed from public view.

The Commissioner of Highways has no in-principle objection to the design and location of the proposed access point as it would be sufficiently offset from the existing U-turn slot in the Anzac Highway median to minimise the likelihood of dangerous manoeuvres being attempted. The GA is also supportive of the consolidation of driveways into one to maximise the extent of the public domain and improve pedestrian safety and amenity.

Council considers the proposed access point would create a risk due to obstruction of sightlines between pedestrians and vehicles by the existing boundary fence, suggesting the driveway would need to be relocated 2 metres to the east to satisfy the sightline requirement.

The applicant asserts the 3.3 setback of the podium edge in this location would provide clear visibility of pedestrians on the footpath, which vehicles would approach at very low speed. It is also noted the subject fence on the adjoining land is comprised of horizontal timber slats allowing some visual permeability at close range, which should provide a satisfactory view of an oncoming pedestrian.

Accordingly and subject to the assignment of a condition requiring installation of an appropriate convex mirror in the planter bed adjacent the driveway to augment pedestrian safety in this location, the proposed access point is considered appropriate.

8.8.2 Vehicle Parking

Development Plan Table WeTo/6 (Off-street Vehicle Parking Requirements for Urban Corridor Zone) recommends provision of 104 on-site car parking spaces (rounded up) to cater for the combined demand for residents, visitors and commercial uses. A total of 85 car parking spaces are proposed incorporating the use of 16 car stacker units in the basement, a shortfall of 19 spaces.

Table WeTo/6 does allow a lesser number of car parking spaces under certain circumstances, some of which may apply to the proposal eg where peak parking demand for different uses occurs at different periods, allowing shared parking.

The applicant presumes 10 spaces required for commercial uses would be available for use by residents' visitors outside of commercial trading and associated parking periods, resulting in a worst case scenario shortfall of 9 visitor parking spaces.

The Council considers the shared parking exceptions available in Table WeTo/6 would not apply in this circumstance as visitor parking demand would exceed that generated by the commercial uses, and peak demand periods for visitor and café customer parking would be likely to coincide from time to time, worsening the shortfall.

As the shortfall cannot be accommodated by on-street parking in the immediate vicinity due to the existing bus stop and shelter at the street frontage, Council argues the proposal does not provide adequate on-site parking to meet the predicted minimum parking demands.

Auswide undertook visual surveys of on-street car parking availability in nearby streets (Beckman/James Streets and Anzac Highway) within approximately 270 metres of the subject land as depicted by coloured lines below between the hours of 8AM and 8PM over 2 days, observing between 40 and 42 vacant spaces during the expected peak demand periods.

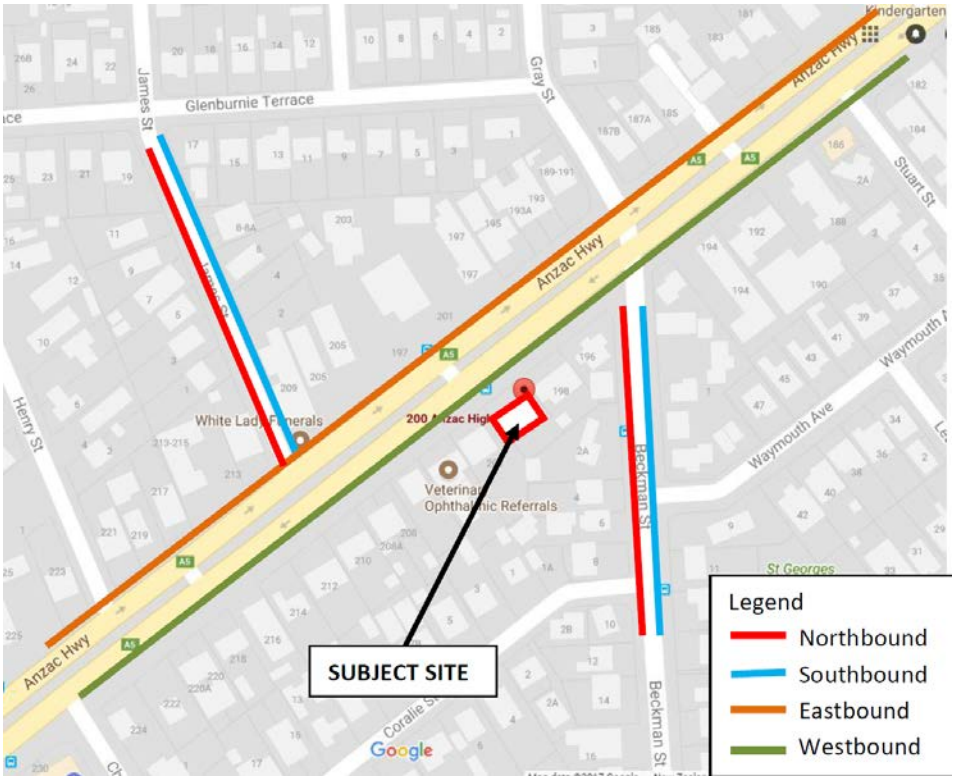

Figure 6 – Extent of on-street parking survey (by Auswide Consulting)

Council asserts that relying on on-street parking beyond the subject site would detrimentally affect existing properties. The applicant contends the significant number of available on-street car parks would be more than sufficient to cater for the anticipated shortfall without any significant effect on existing users of surveyed on-street parking areas.

The applicant further argues the parking arrangements are adequate due to the availability of high frequency public transport services (bus and tram) within short distances of the subject land, providing a realistic travel alternatives to private vehicle transport to and from the development. The applicant also considers it likely that some dwellings would not be allocated a parking space on the basis of purchaser/occupant preferences for public transport.

Although the on-site parking shortfall would be considerable, the potential for shared use of parking, availability of public transport and likelihood of vacant on-street parking in the locality are considered adequate reasons to qualify for a lesser number of parking spaces as per the exclusions listed under part 3 (a), (e) and (f) of Development Plan Table WeTo/6.

Council doubts the effectiveness of the intended basement car stacker system requesting assurances of adequate head height, functionality and capability to accommodate sports utility vehicles. These matters are proposed to be addressed by assigning a condition to any consent granted, requiring provision of operational details and dimensions of the nominated stacker system to confirm its suitability for the intended use.

The applicant initially intended to include 20 bicycle parking spaces located across a secured enclosure adjacent the waste storage room at the rear of the site, a separate section the ground floor carpark's eastern edge and portion of the basement car parking area.

In response to a Council recommendation to relocate visitor parking to a more visible and convenient location, the applicant has included additional bicycle parking spaces for visitors adjacent the alfresco dining area and under the podium colonnade, bringing the overall allocation of bicycle parking shown on plans to 26, marginally short of the 28 recommended in the Development Plan's Table WeTo/7 (Off-street Bicycle Parking Requirements for Urban Corridor Zone).

As additional area is likely to be available at the ground floor or basement to make up the shortfall, a condition is proposed to be assigned to any consent granted requiring the applicant to confirm the location of 28 bicycle parking spaces by submission of final ground floor and basement plans.

8.8.3 Traffic Impact

Auswide had regard to traffic generation rates established in the New South Wales Road Transport Authority Guide to Traffic Generating Development (2002) to estimate the proposal would produce 64 peak hour vehicle movements and 752 movements per day, representing roughly 1 movement per minute during peak hours or when averaged over a 12-hour day.

Auswide consider this would have a less than minor effect on the existing traffic network and would be unlikely to generate any material impact on the existing traffic operations in the vicinity.

Management of traffic and parking during construction is expected to be addressed through preparation of a standard Construction and Environment Management Plan and, provided the matters described above are suitably addressed, the proposed site access, vehicle parking arrangements and

consequential traffic impacts are considered adequate and generally consistent with the Development Plan's expectations.

8.9 Environmental Factors

Development within the Council area should be designed to ensure that community safety and security are maintained, micro-climatic impacts are minimised and the development is compatible with the long term sustainability of the environment. The following sections detail the proposed development's performance against Development Plan policy of relevance to environmental conditions and considerations.

8.9.1 Crime Prevention

General Section policy recommends development designed to maximise surveillance of public spaces through the incorporation of clear lines of sight, appropriate lighting and the use of visible permeable barriers, in association with materials that are resistant to vandalism and graffiti.

Public realm improvements and glazed facades proposed at the Anzac Highway frontage complemented with greater opportunities for passive surveillance from upper level balconies and adjacent living areas are expected to contribute to a well monitored and exposed environment that would not be conducive to anti-social behaviour.

The applicant intends to provide active security and surveillance measures including CCTV and secure entry systems incorporating swipe/key fob system associated with entry to lifts and stairwells linked to an intercom, and an automatic roller grille to the basement car park, to prevent unauthorised access.

The proposed security measures and overall configuration of the development are therefore expected to assist in mitigating risks to user safety and security and deterring overt criminal activity as encouraged by Development Plan policy related to crime prevention.

8.9.2 Noise and Air Emissions

The site is located within the designated area for the Noise and Air Emissions Overlay. Where sensitive development is located within the overlay, the *'Minister's Specification 78B for Construction Requirements for the Control of External Sound'* applies.

The applicant commissioned Resonate Consulting to undertake an environmental noise assessment considering external noise intrusion factors, nearby noise-affected residential receptors and recommendations for acoustic requirements to be incorporated in construction.

Resonate undertook noise monitoring at the rear of the subject land to measure background noise levels in this location to contribute to modelling informing assessment of main issues addressed including façade construction to control noise impacts caused by vehicle movements, traffic along Anzac Highway, mechanical plant and use of the Level 8 function/recreation facilities.

Resonate's recommendations for materiality and construction of external walls, windows and walls and roof and ceilings are proposed to be referenced in a standard condition to be assigned to any consent granted requiring provision of acoustic attenuation to ensure the development will be capable of operating within the requirements of the Development Plan and Minister's Specification.

Although no expert advice has been sought in relation to means of minimising air emissions impacts arising from traffic along Anzac Highway, the design and layout of residential apartments are considered capable of providing adequate

opportunity for cross ventilation to ensure acceptable indoor environment quality as encouraged by the overlay.

8.9.3 Waste Management

Development in the Council area that involves the production and/or collection of waste and recyclable material should include designated collection and storage areas that are appropriately screened and located to enable convenient collection and avoid impacts on adjoining sensitive land uses.

Auswide Consulting was commissioned to prepare a Waste Management Plan to delineate arrangements to cater for operation of the development having regard to content within the Zero Waste SA publication *Best Practice Waste Management Guide for Residential and Mixed Use Developments*.

To respond to the configuration of the development and the proposed means of vehicle access, Auswide recommended that waste collection occur through engagement of a private contractor. A facility manager would be responsible for transferring rubbish bins for general waste, recycling and organics compiled in upper level waste storage areas (adjacent the second stair core) and ground floor commercial tenancies to the ground floor waste storage and collection point at least 3 times per week.

The waste collection vehicle will enter the property via Anzac Highway and drive to the waste storage area on the ground floor, wheel the bins to/from the waste vehicle, empty and replace the bins before leaving the site in a forward motion. A small rigid vehicle (SRV) has been nominated for waste collection, and although the Council claims such vehicles are not available for use in South Australia, the applicant insists that at least 1 Adelaide-based private waste contractor (Veolia Environment SA) includes SRVs in their vehicle fleets to service multi-storey development.

The applicant has made suitable allowances for the development's waste management requirements which would align with the Development Plan's envisaged outcomes. To further reduce safety risks associated with service vehicle movements within the site, a condition is recommended requiring waste collection to be scheduled outside of peak periods anticipated for users of the development to minimise potential for vehicle conflict and traffic congestion.

8.9.4 Stormwater Management

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

The applicant engaged TMK Consulting Engineers to prepare civil engineering delineating stormwater requirements which are to include a pair of 6,000 litre stormwater detention tanks at the site's southern corner, a pump system and pollutant separator to remove stormwater from the basement and provision for discharge to the street watertable in accordance with the Council's specifications and technical requirements.

Council has raised no objection to the proposed stormwater management approach and accordingly the intended stormwater strategy is considered appropriate.

8.9.5 Energy Efficiency

Development should be sited and designed to conserve energy and be energy and water efficient. A summary of environmentally sustainable design principles

applied in the design of the development and specification of equipment follows below:

- solar photovoltaic roof panels (not documented) intended to power common areas and battery connection
- appropriate glazing and façade treatments and use of external shading and balcony overhangs to minimise solar gains during summer
- operable windows allowing natural ventilation
- energy efficient LED light fittings with automated lighting control systems in common areas to minimise unnecessary power consumption
- high efficiency ducted reverse cycle air-conditioning systems to for climate control and air distribution
- gas-boosted centralised hot water
- demand-controlled car park ventilation system with inverter controlled variable speed fans and carbon monoxide sensor
- paints, sealants, adhesives, carpets and other coverings specified with low off-gassing properties;
- light-coloured external finishes to reflect heat and reduce unwelcome solar gain; and
- construction materials with low-embodied energy / carbon profile and high proportion of recycled content where possible (eg cross-laminated timber).

The information provided substantiates the applicant's intent to provide a development which would meet the Development Plan's energy efficiency provisions, and contribute to environmentally sustainable outcomes more generally.

8.9.6 Wind Impacts

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

General Section (Medium and High-Rise Development) PDC 22 establishes that development of 5 or more storeys, or 21 metres or more in building height should be designed to minimise the risk of wind tunnelling effects by adopting appropriate design approaches including a podium at the base of a tower and aligned with the street to deflect wind away from the street, and substantial verandas to deflect downward travelling wind flows over pedestrian areas.

The proposed podium and range of external balconies are considered appropriate responses in this regard, and the colonnade between the podium edge and ground floor tenancies would weather protection as encouraged by relevant policy.

8.9.7 Site Contamination

Some parts of the Urban Corridor Zone have high potential for contaminated because of previous uses and activities and under these circumstances, development should occur on a precautionary basis if site contamination investigations identify potential site contamination, particularly where it involves sensitive uses such residential development.

Application details provide no evidence of measures undertaken to ascertain the extent of any site contamination, although the potential for this is considered relatively low given the established residential use. A standard condition is proposed to be assigned to any consent requiring provision of a statement from

an appropriately qualified environmental engineer confirming suitability of the site for its intended use, prior to the commencement of construction.

8.10 Signage

Advertisements should be designed to enhance the appearance of a development and the locality more generally without creating a hazard. General Section policy establishes dimensional requirements for advertising in Mixed Use and Corridor zones.

Specific requirements for building advertising and signage have yet to be determined, although these are generally expected to be limited to the commercial uses proposed at ground floor and potentially a means of identifying the residential portion of the development. An advisory note will be included within any consent granted indicating future advertisement or signage proposals would be subject to a separate application.

9. CONCLUSION

The development would contribute to the desired character of the Boulevard Policy Area and Urban Corridor Zone by introducing a substantial mixed use development that would have a strong presence at the Anzac Highway frontage.

Although Council would be opposed to the proposed 9 storey scale, the development would exceed the recommended vertical dimension by a total of 200mm and this is not expected to result in unacceptable or overbearing scale within the locality, which features a development of a similar height on the opposite side of the roadway.

The GA supports the applicant's ambition to create a distinctive and sculptural built form with strong horizontal emphasis pronounced by curvilinear balcony forms, use of quality materials and integrated landscaping.

Although the GA recommends further review to deliver a more coherent architectural expression and provide opportunities to set the podium feature back from side boundaries at ground floor, these are not considered to be essential as the current proposal aligns adequately with policy expectations for design quality and would achieve a transformation in the locality's built form.

Residential apartment offerings are expected to provide a reasonably high level of occupant amenity with shortfalls in provision of private open space to be compensated by provision of generous landscaped communal open space in the form of external terraces over several upper levels.

Proposed site access arrangements and associated traffic impacts are considered acceptable. The identified shortfall in on-site car parking should be partially offset part through shared-use parking to cater for residents' visitors outside of commercial tenancies' trading hours, with any residual demand expected to be met by on-street parking opportunities in combination with availability of high frequency public transport services in the locality.

Overall the development is considered an appropriate response to Development Plan policy and is likely to reinforce the Zone and Policy Area's role to provide carefully designed medium-rise mixed-use developments configured to maintain the function of Anzac Highway. Conditional Development Plan consent is recommended in accordance with agency recommendations to ensure technical matters are suitably addressed.

10. RECOMMENDATION

It is recommended that the State Commission Assessment Panel:

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

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

3) RESOLVE to grant Development Plan Consent to the proposal by Feasible Developments Pty Ltd for demolition of existing dwellings and construction of nine (9) storey mixed use development comprising retail and café tenancies, residential apartments and associated basement and ground-level car parking 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 211/M020/18.

Plans by Capsule Projects

Title	Drawing No.	Revision	Date
Site Plan	17.02 – P1.3	D	22.05.18
Lower Ground	17.02 – P1.4	E	23.10.18
Ground	17.02 – P1.5	E	23.10.18
First	17.02 – P1.6	E	23.10.18
Second	17.02 – P1.7	E	23.10.18
Third	17.02 – P1.8	E	23.10.18
Fourth	17.02 – P1.9	E	23.10.18
Fifth	17.02 – P1.10	E	23.10.18
Sixth	17.02 – P1.11	E	23.10.18
Seventh	17.02 – P1.12	E	23.10.18
Eighth	17.02 – P1.13	E	23.10.18
Roof	17.02 – P1.14	D	22.05.18
North Elevation	17.02 – P1.15	D	22.05.18
South Elevation	17.02 – P1.16	E	23.10.18
East Elevation	17.02 – P1.17	D	22.05.18
West Elevation	17.02 – P1.18	D	22.05.18
Section X.X	17.02 – P1.19	E	23.10.18
Section Y.Y	17.02 – P1.20	D	22.05.18
Section Z.Z	17.02 – P1.21	D	22.05.18
3D Perspectives 1	17.02 – P1.22	D	22.05.18
3D Perspectives 2	17.02 – P1.23	D	22.05.18
3D Perspectives 3	17.02 – P1.24	D	22.05.18
3D Perspectives 4	17.02 – P1.25	D	22.05.18
Material Palette & Balcony Detail	17.02 – P1.26	D	22.05.18
Shadow Analysis – 21st December	17.02 – P1.27	D	22.05.18
Shadow Analysis – 21st June	17.02 – P1.28	D	22.05.18

Plans by Jensen Plus

Title	Drawing No.	Revision	Date
Ground Floor	P3018	B	June 2018
Front Podium + Third Floor Terrace	P3018	B	June 2018
Sixth + Eighth Floor Terraces	P3018	B	June 2018

Plans by TMK Consulting Engineers

Title	Drawing No.	Date
Civil Plan – Ground Floor	1804138 – C1/PB	April 2018

Civil Plan – Lower Ground Floor	1804138 – C2/PB	April 2018
Civil Plan – Levels 1, 2, 3 & 4	1804138 – C3/PA	April 2018
Civil Plan – Levels 5, 6, 7 & 8	1804138 – C4/PA	April 2018
Civil Plan – Roof Plan	1804138 – C5/PA	April 2018

External Materials

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

Environment

3. Detailed plans of external spaces shall be submitted to the reasonable satisfaction of the State Commission Assessment Panel in consultation with the Government Architect prior to Building Rules Consent being granted for superstructure works. The plan shall include final details of landscaping including planting medium depths, irrigation methods and other features of the landscaping scheme to demonstrate viability of all plantings. This updated detailed plan shall be reflected, as necessary, in all other relevant plans and drawings (including, for example, sectional drawings).

4. The recommendations details in the Environment Noise Assessment by Resonate Consultants (Reference A180287RP1 Revision 0) dated 17 May 2018 forming part of this consent shall be fully incorporated into the development to the reasonable satisfaction of the State Commission Assessment Panel.

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

6. Any stormwater runoff shall be collected on-site and disposed of safely without jeopardising the safety of adjacent roads.

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

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

Site Contamination

9. A statement by a suitably qualified professional that demonstrates that the land is suitable for its intended use (or can reasonably be made suitable for its intended use) shall be submitted to the State Commission Assessment Panel prior to any superstructure works.

Infrastructure

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

Vehicle Access and Parking

11. A convex mirror shall be installed in an appropriate location adjacent the driveway crossover at the western edge of the subject land to provide motorists exiting the land

with greater visibility of an pedestrian or vehicle approaching the driveway along the southern footpath of Anzac Highway.

12. Prior to Building Rules Consent being granted for substructure works final details of the nominated car stacker system shall be submitted confirming dimensions, functionality and capability of accommodating sports utility vehicles to the satisfaction of the State Commission Assessment Panel.

13. Prior to Building Rules Consent being granted for superstructure works detailed plans of the basement and ground floor detailing the final location of a minimum 28 bicycle spaces to the reasonable satisfaction of the State Commission Assessment Panel.

14. The largest vehicle permitted on-site post-construction shall be a Small Rigid Vehicle (SRV – *AS 2890.2:2002*).

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

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

17. The hours for waste collection and service vehicles (operated by private contractor/s) to enter and exit the subject land shall be scheduled to occur outside of peak usage periods for the approved land uses and peak traffic periods for the local road network.

ADVISORY NOTES

a. No signage or advertising forms part of this Development Plan Consent. No advertising display or signage shall be erected or displayed upon the subject land without an associated Development Approval first being obtained.

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

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

d. The applicant has a right of appeal against the conditions which have been imposed on this Development Plan Consent. Such an appeal must be lodged at the Environment, Resources and Development Court within two months from the day of receiving this notice or such longer time as the Court may allow. The applicant is asked to contact the Court if wishing to appeal. The Court is located in the Sir Samuel Way Building, Victoria Square, Adelaide (telephone number 8204 0289).

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

f. A Construction Environment Management Plan (CEMP) shall be prepared in collaboration with the City of West Torrens (Council) and implemented throughout

construction in accordance with current industry standards including the *Local Nuisance and Litter Control Act 2016*, the EPA publications "Handbook for Pollution Avoidance on Commercial and Residential Building Sites – Second Edition" and, where applicable, "Environmental Management of On-site Remediation" – to minimise environmental harm and disturbance during construction. The management plan should incorporate, without being limited to, the following matters:

- timing, staging and methodology of the construction process and working hours;
- traffic management strategies;
- control and management of construction noise, vibration, dust and mud;
- management of infrastructure services during construction and re-establishment of local amenity and landscaping;
- stormwater and groundwater management during construction;
- site security, fencing and safety and management of impacts on local amenity for residents, traffic and pedestrians;
- disposal of construction waste, any hazardous waste and refuse in an appropriate manner according to the nature of the waste;
- protection and cleaning of roads and pathways; and
- overall site clean-up.

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

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

i. You are advised of the following requirements of the *Heritage Places Act 1993:*

(a) If an archaeological artefact believed to be of heritage significance is encountered during excavation works, disturbance in the vicinity shall cease and the SA Heritage Council shall be notified; and

(b) Where it is known in advance (or there is reasonable cause to suspect) that significant archaeological artefacts may be encountered, a permit is required prior to commencing excavation works.

j. If Aboriginal sites, objects or remains are discovered during excavation works, the Aboriginal Heritage Branch of the Aboriginal Affairs and Reconciliation Division of the Department of the Premier and Cabinet (as delegate of the Minister) should be notified under Section 20 of the *Aboriginal Heritage Act 1988*.

Ben Scholes
PROJECT OFFICER
DEVELOPMENT DIVISION
DEPARTMENT OF PLANNING, TRANSPORT and INFRASTRUCTURE

Subject Land – View from west

Subject Land – View from north

Subject Land – 200 Anzac Highway, Plympton

Subject Land – 202 Anzac Highway, Plympton

Adjacent Land – 198 Anzac Highway, Plympton

Adjacent Land – 204 Anzac Highway, Plympton

Adjacent Land – 204 Anzac Highway, Plympton (view towards subject land)

Vacant allotment at 196 Anzac Highway, Plympton – view from west

Vacant allotment at 196 Anzac Highway, Plympton – view from north

Vacant allotment at 196 Anzac Highway, Plympton – view from south

View to northeast along Anzac Highway

Intersection of Beckman Street and Anzac Highway

Adjacent Land – Sorrento Meridian Apartments & Tower Apartments at 197-203 Anzac Highway, Plympton

Adjacent Land – Sorrento Meridian Apartments & Tower Apartments at 197-203 Anzac Highway, Plympton

Adjacent Land – Sorrento Meridian Apartments & Tower Apartments at 197-203 Anzac Highway, Plympton

Apartment Complex at 205 Anzac Highway, Plympton

Apartment Complex at 213-215 Anzac Highway, Plympton

Residential flat building under construction at 221 Anzac Highway, Plympton (view from south)

Residential flat building under construction at 221 Anzac Highway, Plympton (view from south west)

View to southwest along Anzac Highway

Residential flat building constructed at 214 Anzac Highway, Plympton

Interface between residential flat building at 214 Anzac Highway and adjoining dwelling

Residential development underway at 222-224 Anzac Highway, Plympton

Commercial development at 228-230 Anzac Highway, Plympton

Adjacent Land – 2 Beckman Street, Plympton

Adjacent Land – 2 Beckman Street, Plympton

Interface between subject land (202 Anzac Highway) and 2 Beckman Street

Adjacent Land – 6 Beckman Street, Plympton

Dwelling at 8 Beckman Street, Plympton (Tower Apartments in background)

Dwelling at 1A Coralie Street, Plympton (Tower Apartments in background)

View to southwest along Coralie Street (Urban Corridor Zone boundary)

Dwellings at 3 Coralie Street and 1 Coralie Street, Plympton (Tower Apartments in background)

In reply please quote 2018/01931, Process ID: 528866
Enquiries to Matthew Henderson
Telephone 0419 747 010
E-mail dpti.luc@sa.gov.au

Government of South Australia
Department of Planning, Transport and Infrastructure

DEVELOPMENT DIVISION
Transport Assessment and Policy Reform

GPO Box 1533
Adelaide SA 5001

ABN 92 366 288 135

21 August 2018

State Commission Assessment Panel
C/- Mr Ben Scholes
Department of Planning, Transport and Infrastructure
GPO Box 1815
ADELAIDE SA 5001

Dear Ben

SCHEDULE 8 - REFERRAL RESPONSE

Development No.	211/M020/18
Applicant	Feasible Developments P/L
Location	200-202 Anzac Highway, Plympton
Proposal	Nine storey mixed use development

I refer to the above development application forwarded to the Commissioner of Highways (CoH) 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 in accordance with Section 37(4)(b) of the *Development Act 1993* and Schedule 8 of the *Development Regulations 2008*.

CONSIDERATION

The application proposes a nine storey mixed use development. Anzac Highway is an arterial road under the care, control and management of DPTI. Anzac Highway is identified as a Major Traffic Route, a Primary Freight Route, a Major Cycling Route and a High Frequency Public Transport Corridor under DPTI's *'A Functional Hierarchy for South Australia's Land Transport Network'*. This section of Anzac Highway has an AADT of 41,100 vehicles per day (4% commercial vehicles) and a posted speed limit of 60 km/h.

It is proposed that all vehicular access be via a single two-way access point to/from Anzac Highway, located adjacent the western property boundary. The access point appears to be of sufficient width for simultaneous two-way movement of passenger vehicles and sufficiently offset from an existing u-turn slot in the Anzac Highway median to minimise the likelihood of motorists attempting dangerous manoeuvres across Anzac Highway. Given this, the CoH does not object in-principle to the proposed access design and location.

It is noted that the Traffic and Parking Impact Assessment identifies a Small Rigid Vehicle (SRV - *AS 2890.2:2002*) as the largest vehicle anticipated to access the site. As no turn paths have been provided to demonstrate that any larger vehicle could manoeuvre within the site to achieve forward entry and exit to/from Anzac Highway, it is recommended that a condition be applied limiting the largest vehicle permitted on-site to a SRV.

SCAP should be satisfied that sufficient on-site car parking is provided to serve the proposed development. Visitor parking associated with the residential component should be freely available at all times, as should customer parking for the non-residential components of the proposal.

ADVICE

The CoH does not object in-principle to the mix of land uses, access arrangements and setbacks to Anzac Highway proposed. The planning authority is advised to attach the following conditions to any approval:

1. A single vehicular access shall be permitted to serve the development, located adjacent the western boundary of the site and generally in accordance with the plan titled "Ground", Drawing No. 17.02 – P1.5, Revision D, by Capsule Projects.

2. All vehicles shall enter and exit the site in a forward direction.

3. The largest vehicle permitted on-site post-construction shall be a Small Rigid Vehicle (SRV - *AS 2890.2:2002*).

4. Any stormwater run-off shall be collected on-site and disposed of safely without jeopardising the safety of the adjacent roads. Any alterations to the existing road drainage infrastructure as a result of this development shall be at the expense of the applicant.

Yours sincerely

MANAGER, TRANSPORT ASSESSMENT AND POLICY REFORM
for **COMMISSIONER OF HIGHWAYS**

A copy of the decision notification form should be forwarded to dpti.developmentapplications@sa.gov.au

20 August 2018

Ben Scholes
Department of Planning, Transport & Infrastructure
GPO Box 1815
ADELAIDE SA 5001

Dear Ben,

DEVELOPMENT NUMBER: **211/M020/18**
APPLICANT: **Feasible Development Pty Ltd**
NATURE OF DEVELOPMENT: **nine story mixed use development comprising retail and cafe tenancies, residential apartments**
SUBJECT LAND: **202 ANZAC HIGHWAY, PLYMPTON, SOUTH AUSTRALIA, 5038**

The application has been assessed and at a height of RL 50.7m AHD the application **will** penetrate the Adelaide Airport Obstacle Limitation surfaces (OLS) which is protected airspace for aircraft operations.

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

The developments will penetrate the OLS by approximately 2.2 metres.

If the development is approved by the Department of Infrastructure and Regional Development any associated lighting would also need to conform to the airport lighting restrictions and shielded from aircraft flight paths.

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

Should you require any additional information or wish to discuss this matter further please contact the undersigned on 8308 9245.

Yours sincerely,

Brett Eaton
Airside Operations Manager

Adelaide Airport

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OFFICE FOR
DESIGN +
ARCHITECTURE SA

File No:
2014/11235/01

Ref No:
13028038

20 August 2018

Ben Scholes
Project Officer
Inner Metropolitan Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
Level 5, 50 Flinders Street
Adelaide SA 5000

benjamin.scholes@sa.gov.au

For the attention of the State Commission Assessment Panel

200-202 Anzac Highway, Plympton

Further to the referral 211/M020/18 received 25 July 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 am pleased to provide the following comments informed by the Design Review process for your consideration.

The proposal was presented to the Design Review panel on one occasion that was chaired by then Associate Government Architect, Nick Tridente. A pre-lodgement agreement was not reached in advance of lodgement, however I acknowledge that the lodged scheme addresses a number of the issues and concerns raised at the Design Review session.

In principle, I support the development of the site for medium density residential apartments. This proposal has the potential to become a precedent for future developments of this scale in the precinct, and therefore must be supported by high quality design, particularly in relation to a positive public realm contribution, architectural expression and residential amenity. As such, I am of the view that the built form composition and architectural expression requires further refinement to achieve a distinctive and sculptural built form as envisaged.

The project site, an amalgamation of two existing residential lots, is irregular in shape and located on the southern side of Anzac Highway near the corner of Beckman Street. The site has single frontage to Anzac Highway and is adjoined by single storey residential character buildings on both sides. The existing built form character of the locality is predominantly single and double storey residential properties, with the exception of seven and five storey red brick apartment buildings directly across the road. With the recent rezoning of the area to allow developments up to eight storeys (32.5 metres) along Anzac Highway, some developments of similar scale to this proposal have been considered and/or approved on a number of sites in the locality.

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The proposal is for a nine storey mixed use building with overall above ground height of 33 metres, comprising a single storey podium with eight levels of residential apartments above. It also includes one level of basement level car parking. The basement and podium volume is built to the side boundaries. The front setback of the podium varies between approximately two and four metres. The rear building edge of the basement and podium is on the southern boundary of the rectilinear section of the site and the separate enclosure for waste storage and bicycle parking is located in the portion of the site that extends to the south. The apartment levels above the podium are set back by a minimum of 2.6 metres along the eastern boundary and a minimum of three metres along the western boundary. The southern end of the building is stepped at the third and sixth floors with the intent to provide a built form transition and manage interface issues with the adjoining residential properties.

While I acknowledge that a nine storey tall building exceeds the maximum height envisaged for the site by the Development Plan, I am of the opinion that an over-height proposal could be supported, subject to approval by the Adelaide Airport and Civil Aviation Safety Authority (CASA). It is my view that the size and location of the site offers a unique opportunity for a proposal of this scale. However my support for a development that is over-height is contingent on successful mitigation of visual bulk of the development. I welcome the increase of the front setback at the site corners, however I am of the view that the built form should be set back from the side boundaries to respond to the pattern of the existing and future envisaged streetscape of the locality as this development will set a precedent for future developments of this kind. I support the proposed height of the podium being single storey.

I support the provision of the commercial and food and beverage tenancies on the ground floor along the Anzac Highway frontage to sleeve the at-grade car parking spaces behind. I also strongly support the consolidation of driveways into one to maximise the extent of the public domain and improve the safety and amenity of pedestrians. The integration of the services infrastructure to the overall built form is also strongly supported, as it provides uninterrupted engagement with the public realm. A large residential lobby is located at the centre of the site. While I support the generosity of the space, I am of the view that an opportunity exists to strengthen the connection between the lobby and the stairs to the residential apartment floors above.

The single storey masonry podium creates an articulated built form to respond to the scale and materiality of existing buildings in the surrounding context, which I support. Above the podium, the residential levels have a horizontal expression with continuous 'ribbon' like balustrades to curved balconies all round. While I support the ambition to create a distinctive and sculptural built form, I am of the opinion that the vertically expressed projections on the south and east elevations are at odds with the design intent for a horizontal expression. I am also of the view that these vertical elements visually emphasise the height of the building. I recommend review of the straight edged projections with the view to delivering a coherent architectural expression. An opportunity exists to further develop the architectural expression with three dimensional articulation, form accentuation and layering to reduce the apparent mass of the building and develop an architectural expression that is better aligned with the design ambition expressed by the precedent images. In addition, I

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request the provision of further information regarding materiality, including a sample board of the selected materials and finishes aligned with the design intent.

On levels one and two, 11 apartments are provided. The apartment numbers reduce as the height increases and the built form steps back. I support the provision of a consolidated plant enclosure on each apartment floor to maintain balconies free of services equipment. I support the provision of natural light and ventilation to the communal circulation spaces, and welcome the reconfiguration to provide generous lobby spaces. However I remain concerned by the proximity of the entry doors of the two south most apartments on levels one and two. I strongly support the reconfiguration of apartment floors to eliminate inboard bedrooms and reliance on light wells. While the apartments are generally convincing in terms of size and functional layouts, I am concerned that the balconies for type 2 apartments on levels one to seven and type 10 apartments on levels one to three are not sufficiently sized and do not provide optimum amenity or usability. I recommend review of balcony layouts to provide high quality residential amenity for all apartments. The proposal includes rear facing balconies and roof terraces. I support the planting on the terrace edges to manage overlooking issues to the rear. While I recognise the intent to mitigate overlooking from the south facing balconies with full height louvres, I am concerned about the compromised amenity for the apartment, particularly type 7 apartments, where the open living areas rely on openings to the balconies enclosed with full height louvres for natural light and outlook. I recommend development of an alternative overlooking management strategy to provide high quality residential amenity for all apartments.

I strongly support the provision of basement car parking. I also support the inclusion of car stackers to reduce the footprint of the required car parking spaces. While I support the reconfiguration of the bin storage area on the ground floor to rationalise on-site refuse collection, I am concerned about the distance between individual apartments and the consolidated bin storage area on the ground floor. I note that there is an inconsistency between the Waste Management Plan and the floor plans regarding the provision of residential waste area on each apartment floor. I recommend review of the apartment floor layout to include the waste area on each floor as recommended by the Waste Management Plan to ensure a practical and convenient waste transfer arrangement for the residents.

The proposal includes landscaping along the Anzac Highway frontage at ground level, the terrace at the top of podium and the roof terraces on levels three, six and eight. A large communal facility is also proposed on level eight. I strongly support the emphasis given to public realm contribution and the engagement of the landscape consultant to achieve the envisaged integrated outcome. I anticipate further landscaping details including soil depth and irrigation will be developed during the next phase of design development and documentation provided to ensure the landscape ambition of the proposal can be realised.

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To ensure the most successful design outcome is achieved the State Commission Assessment Panel may like to consider particular aspects of the project, which would benefit from protection as part of the planning permission, such as:

- Exploration of opportunities to provide side setbacks.
- Review of the architectural expression, including straight edged projections, with the view to delivering a coherent architectural expression.
- A high quality of external materials for building, outdoor spaces and street interface, supported by the provision of a materials samples board.
- Review of balcony sizes and layouts.
- Review of the overlooking management strategy for the rear facing balconies to ensure high quality residential amenity for all apartments.
- Review of the waste management strategy.
- Development of the landscaping strategy, including technical requirements to sustain integrated soft landscaping.

Yours sincerely

Kirsteen Mackay
South Australian Government Architect

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Government of South Australia

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City of West Torrens
Between the City and the Sea

4 October 2018

State Commission Assessment Panel
GPO Box 1815
ADELAIDE SA 5001

Dear Sir / Madam

DEVELOPMENT APPLICATION: 211/784/2018
APPLICANT: FEASIBLE DEVELOPMENTS PTY LTD
SUBJECT LAND: 200 Anzac Highway, PLYMPTON SA 5038, 202 Anzac Highway, PLYMPTON SA 5038
PROPOSAL: SCAP 211/M020/18 - Construction of a mixed use 8-storey building comprising seventy-five (75) apartments and retail outlets

At its meeting on 7 August 2018, Council endorsed the following resolution:

Council write to the State Commission Assessment Panel and the Minister for Planning, expressing strong opposition to the development application lodged at 200-202 Anzac Highway, on the basis that it exceeds the maximum height of 8 storeys specified in the approved Development Plan.

In addition to the above, on 25 July 2018 Council received an informal referral for the above application from State Commission Assessment Panel. Following the provision of additional information by the applicant, please find enclosed the response provided in accordance with the Pre-lodgement Process Heads of Agreement.

Please contact me if further information regarding this advice is required.

Yours faithfully

Jordan Leverington
Senior Development Officer - Planning
City Development

ATTACHMENT 1

City of West Torrens Informal Referral Response on DA 211/M020/18

- Setbacks

As the subject site has a frontage width of greater than 20m, PDC 18 of the Policy Area, states that the building (excluding verandahs, porticos and the like) should be setback from side boundaries by a minimum of 3m.

At ground level the proposed building is shown to be built from side boundary to side boundary. Of particular concern is the 18m long, 4.5m high wall built to the north western boundary. This will be a visually imposing structure especially when viewed from the neighbouring property.

- Maximum Height

The proposed building is shown to be 9 storeys above ground level, this exceeds the 8 storey maximum described in the Desired Character and PDC 13 of the Zone.

- Overshadowing

The overshadowing diagrams demonstrate that there will be significant overshadowing of the dwelling and private open space areas of 204 Anzac Highway. Although this property is also located within the Urban Corridor Zone and therefore not protected by the overshadowing provisions of the zone, it is an existing sensitive use that should be considered.

There are general provisions within the Design and Appearance section of the Development Plan which are relevant and should be considered.

PDC 9 of the Design and Appearance module of the Development Plan:

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 main internal living areas
(b) ground-level private open space
(c) upper-level private balconies that provide the primary open space area for a dwelling
(d) solar collectors (such as solar hot water systems and photovoltaic cells).

PDC 3 of the Energy Efficiency module of the Development Plan:

Development should facilitate the efficient use of photovoltaic cells and solar hot water systems by:
(a) taking into account overshadowing from neighbouring buildings

PDC 10, 11 & 12 of the Residential Development Module of the Development Plan:

The design and location of buildings should ensure that direct winter sunlight is available to adjacent dwellings, with particular consideration given to:

(a) windows of habitable rooms, particularly living areas
(b) ground-level private open space
(c) upper-level private balconies that provide the primary open space area for any dwelling
(d) access to solar energy.

Development should ensure that north-facing windows to habitable rooms of existing dwelling(s) on the same allotment, and on adjacent allotments, receive at least 3 hours of direct sunlight over a portion of their surface between 9.00 am and 5.00 pm on the 21 June.

Development should ensure that ground-level open space of existing buildings receives direct sunlight for a minimum of two hours between 9.00 am and 3.00 pm on 21 June to at least the smaller of the following:
(a) half of the existing ground-level open space
(b) 35 square metres of the existing ground-level open space (with at least one of the area's dimensions measuring 2.5 metres).

It is considered that the overshadowing caused by the proposed development is excessive and not consistent with the provisions listed above.

- Stacker parking

Council have been provided with some additional information in relation to the stacking parking arrangement. It was acknowledged by the applicant that the plans provided do not accurately represent how the parking arrangement will occur.

Council is satisfied that a stacker parking arrangement could be accommodated but will only support it subject to the following admissions made by the applicant:

- Each of the vehicles will be able to be inserted and removed without needing to remove another vehicle; and
- SUV vehicles will be able to use the stacker.

If either of the above cannot be achieved then Council do not support the stacker car parking element as it will have a considerable impact upon the usability and viability of these carparks. As will be described further in the traffic report section, there is already considered to be a shortfall of parking available for the proposed development.

- Domestic storage

It appears that each floor, above ground level, contains provisions for 10 x 8m^3 storage areas. This arrangement works well for floors 3 - 8, however floors 1 & 2 will be one storage unit short. It is considered inconvenient and impractical to expect resident/s living on the 1st and 2nd floor to travel up to the 6th floor (or above) to access their storage unit.

Storage for each unit should be directly accessible from the floor on which they reside.

- Affordable housing

The subject site is located within an area designated for Affordable housing and as it is a development comprising more than 20 dwellings, it should include a minimum of 15% affordable housing. This equates to 11 (rounded down) dwellings that should be affordable housing.

The Luxehaus Developments planning report acknowledges that the site is within the Affordable housing overlay and acknowledges that:

"There is potential for the 8 x one bedroom apartments to be offered as affordable housing, However, at this stage the proponent has not considered entering into a formal agreement"

Council strongly encourages that the minimum of 11 dwellings are offered as affordable housing as defined by the *South Australian Housing Trust Regulations 2010*.

- Traffic comments

The following comments have been provided based on advice provided by Council's Traffic Consultant, Frank Siow.

1.0 Traffic

I refer to the mixed use development on the subject site. Drawings 17.02-P1.4 and P1.5 Revision D show the proposed parking layout for the development.

I note that the adjoining property at No 204 Anzac Highway has a portion of high solid wall fence that is located adjacent to the side boundary of 202 Anzac Highway. There is also a bus stop with shelter in front of the subject site.

The proposal comprises of 8 one bedroom units, 59 two bedroom units, 8 three bedroom units and commercial land uses of approximately 330m² floor area. Approximately 115m² of the commercial floor area is proposed to be used as a cafe.

Based on the Development Plan, the parking demand would be 10 spaces (rounded up) for the commercial land uses, 75 spaces for residents of the dwellings and 19 spaces (rounded up) for visitors of the dwellings.

1.1 Parking Layout

Before commenting on the parking adequacy issue, I have several concerns regarding the proposed parking layout, which would affect the parking provision on-site. The proposal plans indicate that there will 85 parking spaces available on-site.

Sixteen spaces on the ground level are shown with a grade of 1 in 11.5. Nineteen spaces on the lower level are also shown with the 1 in 11.5 grade for the parking area. Such a grade does not comply with the maximum grade permitted for parking areas of 1 in 16 in AS/NZS 2890.1-2004. Unless the design levels are amended, these spaces should not be included in the car parking calculation for the development, due to the non-compliance issue.

The proposal nominates the use of an SRV vehicle to service the waste bins, however it is Council's understanding that it there is only MRV-sized vehicles available in SA that would

be able to service all of the bin types proposed. In other similar developments, I am aware that the MRV is the general refuse truck adopted for assessment of bin servicing.

The implication of using the MRV for the subject development is that disabled space 1 (and adjacent clear zone) and space 2 would be affected by the maneuvering space required for this larger truck. A number of columns would also be affected. It appears that the use of an MRV would potentially conflict with two car parking spaces. The potential loss of parking of 2 spaces to accommodate the MRV truck would result in an on-site parking provision of 83 spaces.

1.2 Parking assessment

If 75 resident parking spaces were to be provided, there would be 8 spaces left to be shared by the commercial land uses (10 spaces required) with the visitors of the units (19 spaces required).

Assuming that all 10 spaces of the commercial land uses were able to be shared with the visitors of the units, there would still be a shortfall of 9 spaces for visitors. This shortfall of onsite parking cannot be accommodated by on street parking due to the existing bus stop and shelter located in front of the site.

The parking shortfall of visitors of the units is likely to be much higher since the cafe tenancy would have peak times similar to visitors of the units, ie the shared parking between the cafe land use and the visitors of the units would not be reasonably available.

It is noted that the traffic report provides some argument as to why a lower parking demand for the proposed development is appropriate. However, PDC 3(a) of Table WeTo/6 is not satisfied because even with shared parking, the visitor parking demand would be well in excess of what the commercial land uses would generate (assuming that all of the commercial land uses are closed when visitor parking for the units is at its peak).

In addition to this, PDC 3(c) of Table WeTo/6 is not satisfied because on-street parking on the subject site's frontage is limited by the existing bus stop. Relying on the on-street parking beyond the subject site would mean that other existing properties would become affected by the parking shortfall of the development.

For all of the above reasons, Council is of the opinion that the proposed development does not provide adequate parking to meet its likely peak parking demands.

1.3 Other issues

I note that visitor bicycle parking is proposed adjacent to Space 22 at the rear of the development. These visitor spaces should be relocated to the Anzac Highway frontage to make them more visible and more conveniently located for visitors.

Due to the current fencing of the neighbouring property (204 Anzac Highway), the pedestrian sight line requirement for the exit driveway is not met. An exiting driver would not be able to view pedestrians walking along the footpath towards the vehicle entrance. The proposed driveway should need to be relocated east by 2m in order to satisfy this requirement.

The elevation plan shows that a car stacker would be provided for one row of parking in the lower level. There is no indication of what type of car stacker system would be provided, therefore it is not possible to assess if there is adequate head height provided for this stacker system to work. Further details should be provided by the applicant.

CAPSULE PROJECTS

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23rd October 2018

Attn: Ben Scholes
Project Officer
Inner Metropolitan Development Assessment
Planning and Development
Department of Planning, Transport and Infrastructure
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ADELAIDE SA 5000

via email - *benjamin.scholes@sa.gov.au*

Ben,

RE: Response to Referral Comments – Development Application 211/784/2018
200-202 Anzac Highway, Plympton

Written responses from the following referral agencies have been received in relation to the proposed development:

- Office for Design and Architecture SA (ODASA).
- City of West Torrens.
- Adelaide Airport Limited.
- Commissioner of Highways.

We hereby offer the following responses:

Office for Design and Architecture SA
We note that ODASA acknowledge that the lodged scheme addresses a number of the issues and concerns raised at the Design Review session during the pre-lodgement stage. We also note that ODASA have provided many comments in support of the proposed development, including a 9 storey building on the Site and the general design intent. Notwithstanding this, a number of design changes are still recommended by ODASA. A response to these considerations is provided below.

Consideration	**Response**
Vertical architectural elements	Concern is raised about the vertical projections on the eastern and southern elevations, which in their view is at odds with the design intent for horizontal expression. We do not share this view and it is important to note that the concept presented to Design Review during the pre-lodgement process also had

	vertical elements. We state that the vertical architectural elements proposed add visual interest and articulation to the built form. We note that the Anzac Highway façade has a primary horizontal expression. This horizontal expression created via curvilinear balcony elements return along the eastern and western side elevations approximately 8.5 metres. As a result, it is submitted that the when the adjoining properties are developed in line with the preferred built form character, scale and siting of the UCZ, the vertical elements on the eastern side would have very limited visibility from the public realm. Overall, We submit that the primary architectural mass is well-managed by the combination of both horizontal and vertical architectural elements, with the former being more dominant and sculptural in nature.
Podium Side Setbacks	We note that ODASA support the single storey podium is supported. We also note that PDC 18 of the UCZ allows for development to be built to side boundaries for two storeys, whereas a site in Policy Area 34 is less than 20 metres in width. It is therefore clear that the future character along Anzac Highway would comprise development that is either setback from side boundaries or built to the boundary up to two storeys. The proposed podium is single storey in scale and is largely open on the western side for vehicle access purposes. We believe this is entirely appropriate given various allotments in the surrounding area are less than 20 metres and can accommodate two storey boundary walls in accordance with PDC 18.
Improve Entry Lobby and Stair connectivity	The relationship of the entry lobby and stair access areas has markedly improved since the Design Review meeting. We submit that the current design features a convenient connection between entry lobby and stairwell for the use of future building occupants and visitors alike.
Material Detail	We support the inclusion of a condition on any Provisional Development Plan Consent issued that requires a detailed schedule of external colours and materials to be approved prior to the issue of Development Approval.
Entry Doors of Southernmost Apartments of Levels 1 and 2	Firstly, the Development Plan does not specify a maximum distance that dwelling entries should be from the lift core and stairwell areas. We submit that whilst the southernmost dwelling entries on Level 1 and 2 are approximately 25 metres from the lift core, the communal corridor is provided with a high level of amenity the provision of windows for ventilation and natural light and breakout spaces to encourage social interaction. One should also note requirements of NCC in regard to exit

	travel distances from the entry/exit of a sole occupancy unit (SOU) to a point of exit.
In Board Bedrooms	ODASA have recommended the elimination of inboard bedrooms. The concept presented at the first DPTI Pre-Lodgement meeting incorporated inboard bedrooms. The current lodged scheme does not feature inboard bedrooms, however, a number of apartment typologies have bedrooms with snorkel-style windows. We note that the Development Plan does not set out minimum standards for window sizes to habitable room. Furthermore, each apartment has at least one bedroom with a larger external window. Therefore, and on balance, we suggest the proposed bedrooms with snorkel windows are appropriate and would still allow for natural ventilation and lighting.
Balcony sizes	Each one bedroom apartment is provided with a balcony area of at least 8 square metres, two bedroom apartment with 9 square metres and three bedroom apartments with 26 square metres. Some minor variations are sought from the quantitative area and dimension requirements. However, the variations are justified through the generous provision of high quality communal open spaces areas on the third, sixth and eight floors which go above requirements of the Development Plan.
Overlooking Strategy / Louvres	Issues of overlooking have been mitigated as far as practical by orientating the majority of apartments away from the residential zones nominated for lower scale development which are predominantly located to the south. ODASA has supported the planting to the edges of the southern terraces and recommended that the louvre screening to type 7 apartments be reviewed. We hereby submit a revised proposal whereby the louvre screen is shifted eastwards such that it splits the screening with adjacent apartment type 8.
Waste Management Plan	The Waste Management Plan, prepared by Auswide Consulting, has been updated to achieve consistency with the architectural plans in relation to waste bin locations on residential levels.
Landscape Plan	We support the inclusion of a condition on any Provisional Development Plan Consent issued that requires a detailed landscape plan to be approved prior to the issue of Development Approval.

City of West Torrens

We note that West Torrens City Council have formed a 'blanket' position to oppose any development that exceeds maximum building height requirements set out in the West Torrens Development Plan, which includes the proposed development. A response to Council's concern regarding building height is provided in the table below, together with other referral comments.

Consideration	Response
Side Boundary Setbacks	Refer to 'Podium Side Setbacks' under our response to ODASA comments. Further, the visual impact of the boundary located along the north western boundary is also well-managed due its limited length.
Maximum Height	The maximum height of the proposed building is approximately 32.7 metres and 9 storeys high, which is 200mm and one storey higher than the maximum building height envisaged in Policy Area 34 under UCZ PDC 13. On balance, the proposed height is considered more than acceptable due to the proposal providing a strong presentation to Anzac Highway and exhibiting strong attention to design excellence. This is seen through a strong podium design language at ground level and highly articulated 'tower' form for the upper levels. We also note that Adelaide Airport Limited and ODASA have not objected to the proposed building height.
Overshadowing	The overshadowing policies cited under the Residential Development module apply to residential settings throughout South Australia, including significant areas of suburban and semi-urban areas. These policies are inappropriate to apply to development within the Urban Corridor Zone, where a mix of uses including high density residential development is envisaged. Furthermore, the preferred character of the UCZ could not be established if these policies were applied. PDC 15 of the Zone outlines specific policies relating to overshadowing sensitive development on land outside the UCZ. Given the Site is adjoined by land in the UCZ, these policies are no applicable.
Stacker Parking	Council is satisfied that a stacker parking arrangement could be accommodated by the proposed development. As previously mentioned in direct correspondence with Council by Capsule Projects, the design and engineering will be developed as the project progresses. The applicant has committed to ensuring the final stacker design will allow each of the vehicles to be able to be inserted and removed without needing to remove another vehicle. SUV vehicles would also be accommodated.

Domestic Storage	There is no mention in the Development Plan regarding the proximity of domestic storage to the relative apartment, indeed many developments have their storage areas located within basement levels.
Affordable Housing	As stated in the planning report, the applicant is committed to providing housing that is 'affordable' but not via formal agreement. The 'affordable' housing products would likely be the eight (8) one bedroom apartments proposed, which represent 10% of the total dwelling mix.
Traffic, Access and Car Parking Matters	Car Park Ramp Gradient Issues of grade with the carpark ramp have been addressed in an amended traffic and parking impact assessment report by Auswide. Originally the proposed sloping car park floor had a maximum gradient of 1:11.5 or (8.7%). This is slightly steeper than the standard maximum gradient of 1:16 or (6.25%). However, we submit a modified floor plan of the car park floor with a complying configuration. A schematic plan is attached as Appendix C of the report and the architectural drawings have been updated accordingly. MRV vs SRV rubbish collection We have been advised by at least one Adelaide based waste collection company (Veolia) that they utilise SRV vehicles to service many high rise city developments where refuse areas are located in basements and the like. Sight line of pedestrians on footpath The building line has been set back from the front boundary to provide clear visibility of pedestrians on the footpath. Any infringement by the current fencing of the neighbouring property (204 Anzac Highway) is beyond the scope of the application. Shortfall of parking The traffic and parking impact assessment report by Auswide clearly addresses the issue of car parking numbers. Whilst a shortfall is acknowledges, there are some other important mitigating factors such as: - The proposed site is very well located to public transport services with frequent bus and tram services within a short distance from the site. - It is considered that at least two (if not more) of the residential tenants would not require a parking space. - It is docubtful whether any of the one bedroom apartments would be poffered with a parking space. This is particularly relevant should the affordable housing scheme agreement be incorporated. - A number of the clients of the Café and the two commercial

tenancies would walk or cycle from the neighbouring sites or the residents on site. This would further reduce the parking demand and hence the expected parking shortfall.

- The parking survey results show that on Wednesday and Saturday, the minimum number of vacant spaces on street was 40-42, which is more than sufficient to cater for the parking shortfall, without any significant effect on the existing users of the surveyed on-street parking areas.

Relocating bicycle parking
Bicycle parking for visitors has been reconfigured to provide a split between the front and rear of the ground floor to offer a number of options for cyclists.

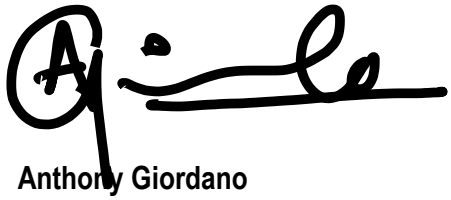
Stacker type and detail
See previous comments

Adelaide Airport
We note that Airside Operations has assessed the application in parallel with the lodged report by Landrum & Brown. As the project will penetrate the Adelaide Airport Obstacle Limitation surfaces (OLS) – it has progressed to an application in accordance with the Airports Act 1996 and the Airports (Protection of Airspace) Regulations 1996.
Subsequent correspondence between Brett Eaton and Capsule Projects has confirmed that the application is currently with CASA and Air Services for their comment which should be completed by the end of October with final approval by the Department of Infrastructure Regional Development and Cities expected in early November.

Commissioner of Highways
We note that the Transport Assessment and Policy Reform division of DPTI have no objections to the proposed development. Four conditions are directed, which the applicant is willing to accept.

I trust that these responses are adequate. Please find attached a listing of the documents that have been lodged for approval with any amendments highlighted accordingly.

Yours Faithfully



Anthony Giordano
B.Arch (Hons.) Grad. Dip. Bldg. Surv.

Enc.

A list of all the documents (with changes highlighted) is as follows:

A – ARCHITECTURAL

Architectural Drawings- Capsule Projects

A17.02	P1.1	Title Page	D	
	P1.2	Locality Details	D	
	P1.3	Site Plan	D	
	P1.4	Lower Ground	E	Carpark Ramp
	P1.5	Ground	E	Carpark Ramp
	P1.6	First	E	Screen to Apt 7/8, Bins
	P1.7	Second	E	Screen to Apt 7/8, Bins
	P1.8	Third	E	Screen to Apt 7/8, Bins
	P1.9	Fourth	E	Screen to Apt 7/8, Bins
	P1.10	Fifth	E	Screen to Apt 7/8, Bins
	P1.11	Sixth	E	Screen to Apt 7/8, Bins
	P1.12	Seventh	E	Screen to Apt 7/8, Bins
	P1.13	Eighth	E	Screen to Apt 7/8, Bins
	P1.14	Roof	D	
	P1.15	North Elevation	D	
	P1.16	South Elevation	E	Screen to Apt 7/8
	P1.17	East Elevation	D	
	P1.18	West Elevation	D	
	P1.19	Section X.X	E	Carpark Ramp
	P1.20	Section Y.Y	D	
	P1.21	Section Z.Z	D	
	P1.22	3D Perspectives 1	D	
	P1.23	3D Perspectives 2	D	
	P1.24	3D Perspectives 3	D	
	P1.25	3D Perspectives 4	D	
	P1.26	Material Palette & Balcony Detail	D	
	P1.27	Shadow Analysis - 21st December	D	
	P1.28	Shadow Analysis - 21st June	D	

3D IMAGES – Vive Developments

File 1, 2, 3, 4, 5 and 6

B – PLANNING

Planning Report – Tract Consultants

C – AERONAUTICAL

Aeronautical impact assessment – Landrum and Brown

Crane Report – Capsule Projects

D – TRAFFIC

Traffic and Parking impact assessment- Auswide Consulting
Updated October 2018 – Revision 1.3
(Ramp gradient – appendix C, sight distance for pedestrians – appendix D)

E – WASTE

Waste Management plan- Auswide Consulting
Updated October 2018 – Revision 1.2
(Typical residential floor bin location –Figure 4)

F – LANDSCAPING

Final Landscape Concepts – Jensen +

G – ACOUSTICS

Environmental Noise Assessment- Resonate

H – STORMWATER

TMK Consulting Engineers

Civil Plan – Ground Floor (Carpark Ramp)
Civil Plan – Lower Ground Floor (Carpark Ramp)
Civil Plan – Levels 1, 2, 3 & 4
Civil Plan – Levels 5, 6, 7 & 8
Civil Plan – Roof Plan

Scholes, Benjamin (DPTI)

From: Anthony Giordano <anthony@capsuleprojects.net.au>
Sent: Tuesday, 11 September 2018 12:47 PM
To: Jordan Leverington
Cc: Scholes, Benjamin (DPTI)
Subject: Re: Informal Referral - 211/M020/18 - 200-202 Anzac Highway, Plympton

Jordan,

As is typical with design drawings - there is still a fair bit of engineering and development that will need to be integrated and co-ordinated to achieve the desired outcome.

Rest assured that this will occur as the project progresses - as is typically the case

The maximum vehicle size to be accomodated would be a family sized SUV vehicle

Regards
Anthony Giordano

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Mobile: 0407 297 038
anthony@capsuleprojects.net.au
www.capsuleprojects.net.au

On 11 Sep 2018, at 12:21 pm, Jordan Leverington <jleverington@wtcc.sa.gov.au> wrote:

Hi Anthony,

Thanks for your email.

It appears that the submitted plans will need to revised to accurately demonstrate the parking arrangement, it may also require reconsideration of the levels. To operate as described and as demonstrated in the images below, the top vehicle needs to be able to travel into a recess in order for the lower vehicle to exit. The proposed plans do not appear to provide for this recess.

<image001.png><image003.jpg>

Could you also please confirm the maximum sized vehicle to be accommodated by which ever stacker is ultimately chosen?

Kind regards

Jordan Leverington
Senior Development Officer - Planning
City of West Torrens
165 Sir Donald Bradman Drive
Hilton SA 5033

Phone: 08 8416 6333
Email: jleverington@wtcc.sa.gov.au

From: Anthony Giordano [mailto:anthony@capsuleprojects.net.au]
Sent: Tuesday, 11 September 2018 11:12 AM
To: Jordan Leverington <jleverington@wtcc.sa.gov.au>
Cc: Scholes, Benjamin (DPTI) <Benjamin.Scholes@sa.gov.au>
Subject: Re: Informal Referral - 211/M020/18 - 200-202 Anzac Highway, Plympton
Importance: High

Hi Jordan,

Please find attached a flyer regarding the typical carpark stacker arrangement.
The top car does not need to be removed to access the lower car - as the suspended deck 'tilts' as required.
You can access video of one in use here:https://www.youtube.com/watch?v=KQThKQMc61Y
There are no details in the documents as a carpark stacker is a generic description fro a system supplied by multiple different providers - the owner reserves their right to choose the most suitable as the project develops.

I trust this is adequate - do not hesitate to contact me with any queries
Regards
Anthony Giordano

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www.capsuleprojects.net.au

> On 13 Aug 2018, at 8:49 am, Jordan Leverington <jleverington@wtcc.sa.gov.au> wrote:
>
> Hi Benjamin,
>
> I am currently looking at the above mentioned application in order to prepare a response from Council.

I was hoping that you could provide some guidance around the stacker parking arrangement?

As highlighted in my pre-lodgement comments, we would like some information as to how this arrangement will work. It appears that the top car will need to be removed in order to access the car on the bottom. I couldn't find any details of the system in the plans nor a description in the relevant reports.

<image001.png>

Thanks

Jordan Leverington
Senior Development Officer - Planning
City of West Torrens
165 Sir Donald Bradman Drive
Hilton SA 5033

Phone: 08 8416 6333
Email: jleverington@wtcc.sa.gov.au

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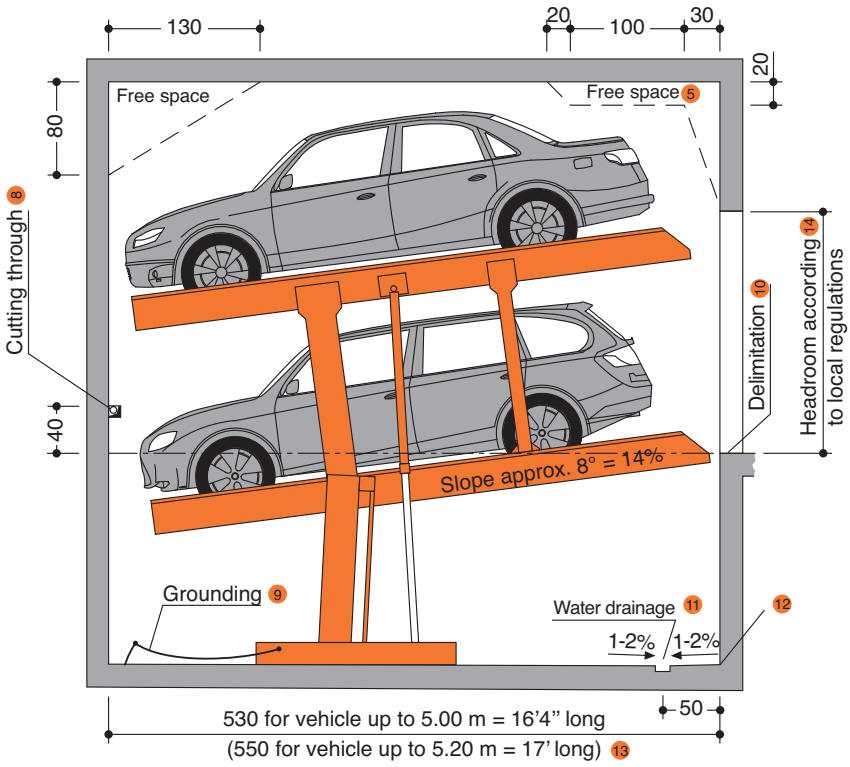
info@multiparking.com
www.multiparking.com

PRODUCT DATA

multibase G82

2000 kg 1

Garage without door (basement garage)



Dimensions

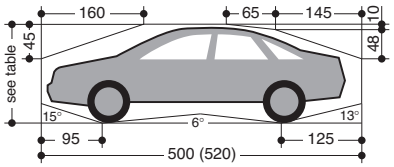
All space requirements are minimum finished dimensions.
Tolerances for space requirements $^{+3}_{0}$. 1
Dimensions in cm.
EB (single platform) = 2 vehicles
DB (double platform) = 4 vehicles

Suitable for

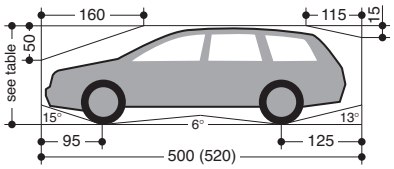
Standard passenger cars:
Limousine, station wagon, SUV, van according to clearance and maximal surface load.

	Standard	Special 2
width	190 cm 4	190 cm 4
weight	max. 2000 kg	max. 2600 kg
wheel load	max. 500 kg	max. 650 kg

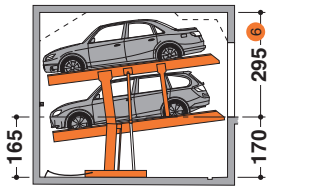
Clearance profile Limousine (L)



Clearance profile Station wagon (S)

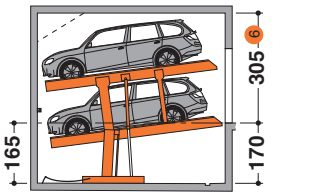


G82-165/295



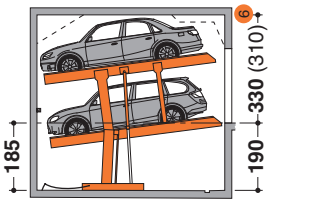
height	car height upper (L) 7	car height lower (L+S)
295	150	150

G82-165/305



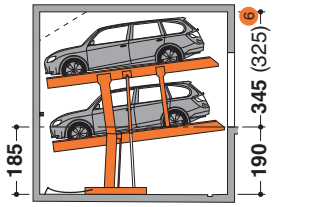
height	car height upper (L+S)	car height lower (L+S)
305	150	150

G82-185/310



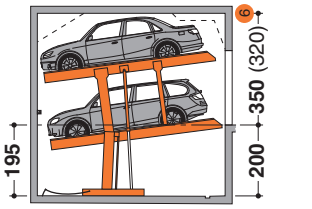
height	car height upper (L)	car height lower (L+S)
330	170	170
(310)	150	170

G82-185/325



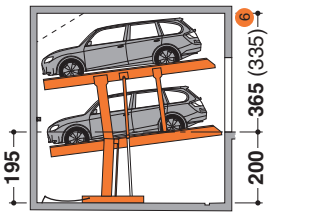
height	car height upper (L+S)	car height lower (L+S)
345	170	170
(325)	150	170

G82-195/320



height	car height upper (L)	car height lower (L+S)
350	180	180
(320)	150	180

G82-195/335



height	car height upper (L+S)	car height lower (L+S)
365	180	180
(335)	150	180

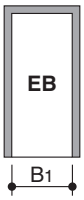
1. Standard type
2. Special system: maximum load (only EB – upper or lower parking place) for extra charge.
3. To follow the minimum finished dimensions, make sure to consider the tolerances according to VOB, part C (DIN 18330 and 18331) and the DIN 18202.
4. Car width for platform width 230 cm. If wider platforms are used it is also possible to park wider cars.
5. Free space does not apply for station wagons on upper platform.
6. If a higher ceiling height is available higher cars can be parked.
7. L = Limousine / S = Station wagon
8. For dividing walls: cutting through 10 x 10 cm.
9. Potential equalization from foundation grounding connection to system (provided by the customer).
10. In compliance with DIN EN 14010, 10 cm wide yellow-black markings compliant to ISO 3864 must be applied by the customer to the edge of the pit in the entry area to mark the danger zone (see „load plan" page 4).
11. Slope with drainage channel and sump.
12. At the transition section between pit floor and walls no hollow mouldings/coves are possible. If hollow mouldings/coves are required, the systems must be designed smaller or the pits accordingly wider.
13. For convenient use of your parking space and due to the fact that the cars keep becoming longer we recommend a pit length of 550 cm.
14. Must be at least as high as the greatest car height + 5 cm.

MultiBase G82 | Code number 583.91.390-011 | Version 12.2016

Width dimensions for garage without door (basement garage)

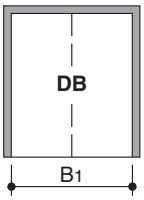
Dividing walls

Single Platform (EB)



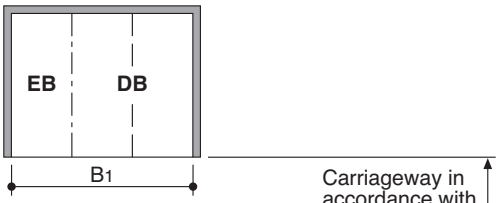
usable platform width	B1
230	260
240	270
250	**280**
260	**290**
270	**300**

Double Platform (DB)



usable platform width	B1
460	490
470	500
480	510
490	520
500	**530**

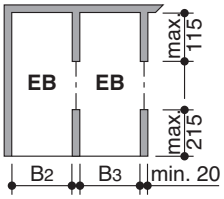
Single and Double Platform (EB + DB) – Example



usable platform width	B1
230 + 460	750
240 + 470	770
250 + 480	790
250 + 500	**810**
270 + 500	**830**

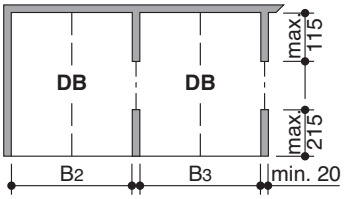
Columns in pit

Single Platform (EB)



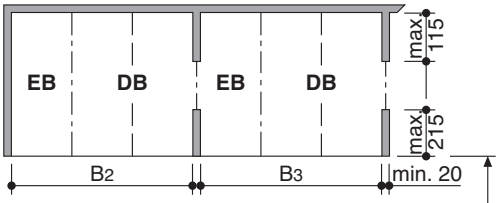
usable platform width	B2	B3
230	255	245
240	265	255
250	**275**	**265**
260	**285**	**275**
270	**295**	**285**

Double Platform (DB)



usable platform width	B2	B3
460	485	475
470	495	485
480	505	495
490	515	505
500	**525**	**515**

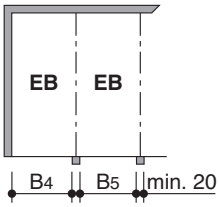
Single and Double Platform (EB + DB) – Example



usable platform width	B2	B3
230 + 460	745	735
240 + 470	765	755
250 + 480	785	775
250 + 500	**805**	**795**
270 + 500	**825**	**815**

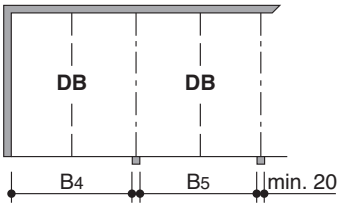
Columns outside pit

Single Platform (EB)



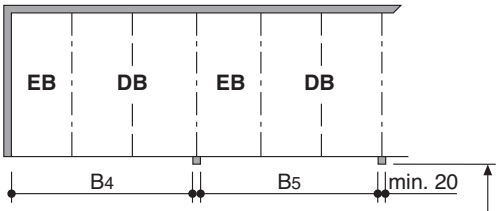
usable platform width	B4	B5
230	250	240
240	260	250
250	**270**	**260**
260	**280**	**270**
270	**290**	**280**

Double Platform (DB)



usable platform width	B4	B5
460	480	470
470	490	480
480	500	490
490	510	500
500	**520**	**510**

Single and Double Platform (EB + DB) – Example

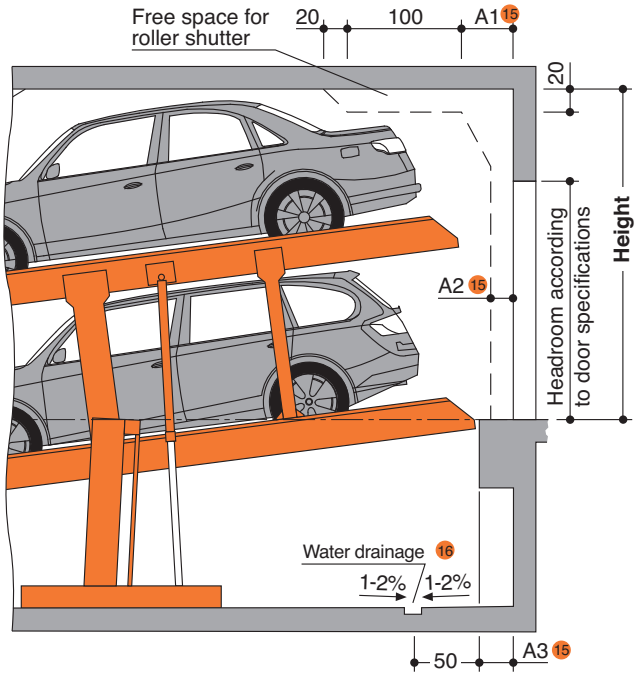


usable platform width	B4	B5
230 + 460	740	730
240 + 470	760	750
250 + 480	780	770
250 + 500	**800**	**790**
270 + 500	**820**	**810**

For parking boxes on the edges and boxes with intermediate walls we recommend our maximum platform width of 270 cm for single platforms and 500 for double platforms. Problems may occur if smaller platform widths are used (depending on car type, access and individual driving behaviour and capability).

For larger limousines and SUV wider driveways are necessary (in particular on the boxes on the sides due to the missing manoeuvring radius).

Garage with door



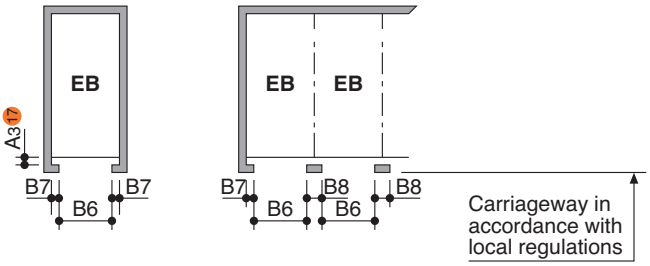
15 Dimensions A1, A2 and A3 must be coordinated with the door supplier (provided by the customer).

16 Slope with drainage channel and sump.

17 Seat-engaging surface (dimensions require coordination with door supplier.) Allround door dimensions require coordination between door supplier and local agency of KLAUS Multiparking.

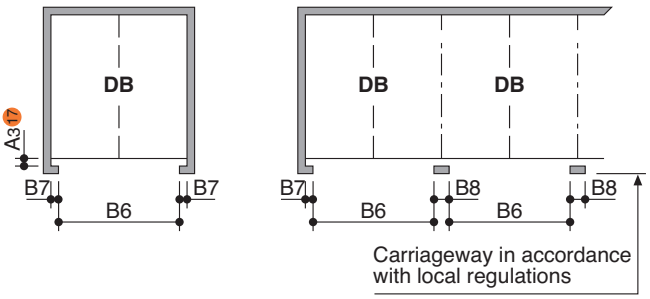
Width dimensions for garage with door

Single platform (EB)



usable platform width	door entrance width B6	B7	B8
230	230	15	30
240	240	15	30
250	**250**	**15**	**30**
260	**260**	**15**	**30**
270	**270**	**15**	**30**

Double platform (DB)



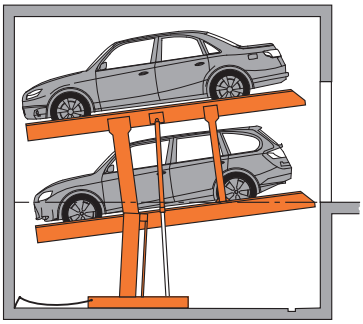
usable platform width	door entrance width B6	B7	B8
460	460	15	30
470	470	15	30
480	480	15	30
490	490	15	30
500	**500**	**15**	**30**

For parking boxes on the edges and boxes with intermediate walls we recommend our maximum platform width of 270 cm for single platforms and 500 for double platforms. Problems may occur if smaller platform widths are used (depending on car type, access and individual driving behaviour and capability).

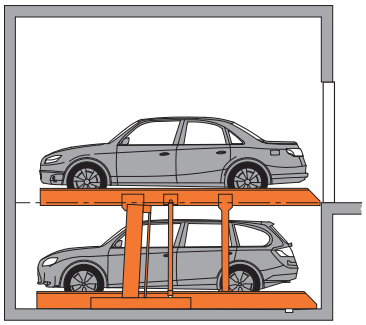
For larger limousines and SUV wider driveways are necessary (in particular on the boxes on the sides due to the missing manoeuvring radius).

Function

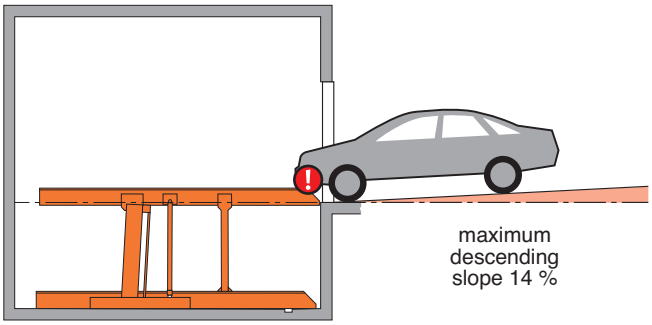
System lifted

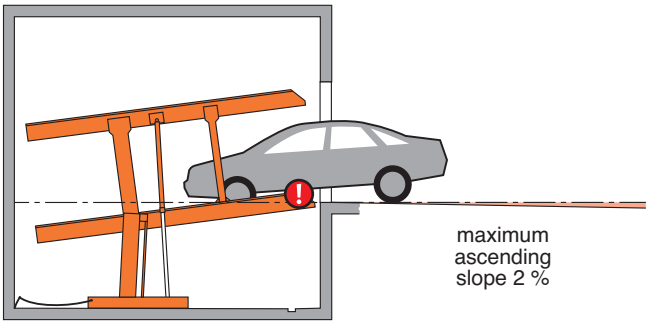


System lowered



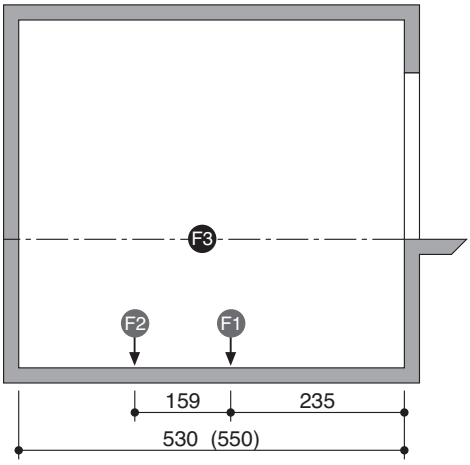
Approach

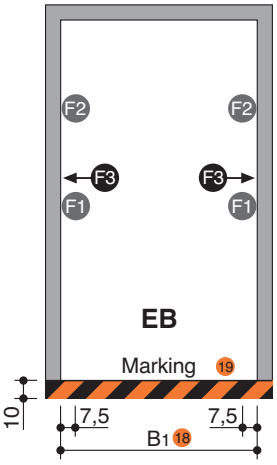


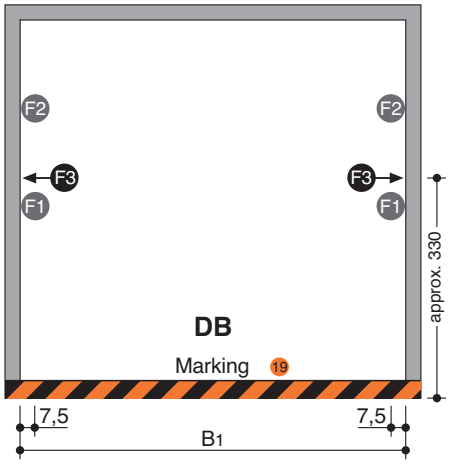


The illustrated maximum approach angles must not be exceeded. Incorrect approach angles will cause serious maneouvring & positioning problems on the parking system for which the local agency of KLAUS Multiparking accepts no responsibility.

Load plan







platform load	F1	F2	F3 20
EB 2000 kg	+35,9 −2,7	+8,3 −1,9	±2,3
EB 2600 kg (upper or lower parking place)	+38,3 −3,1	+9,4 −2,1	±2,5
DB 2000 kg	+58 −4,7	+19 −3,5	±5,7

Units are dowelled to the floor. Drilling depth: approx. 15 cm.

Floor and walls below the drive-in level are to be made of concrete (quality minimum C20/25)!

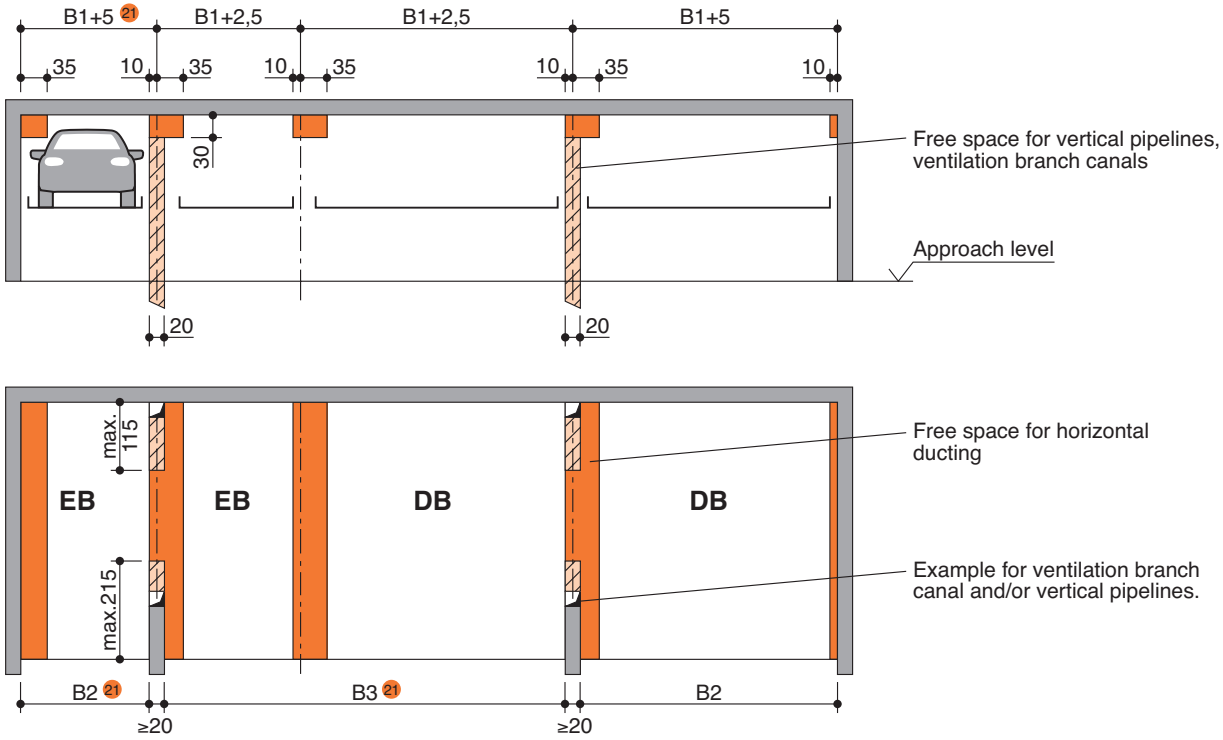
The dimensions for the points of support are rounded values. If the exact position is required, please contact KLAUS Multiparking.

18 Dimension B1 see page 2

19 Marking compliant to ISO 3864 (colors used in this illustration are not ISO 3864 compliant)

20 All forces in kN

Installation data – Free space for longitudinal and vertical ducts (e.g. ventilation)

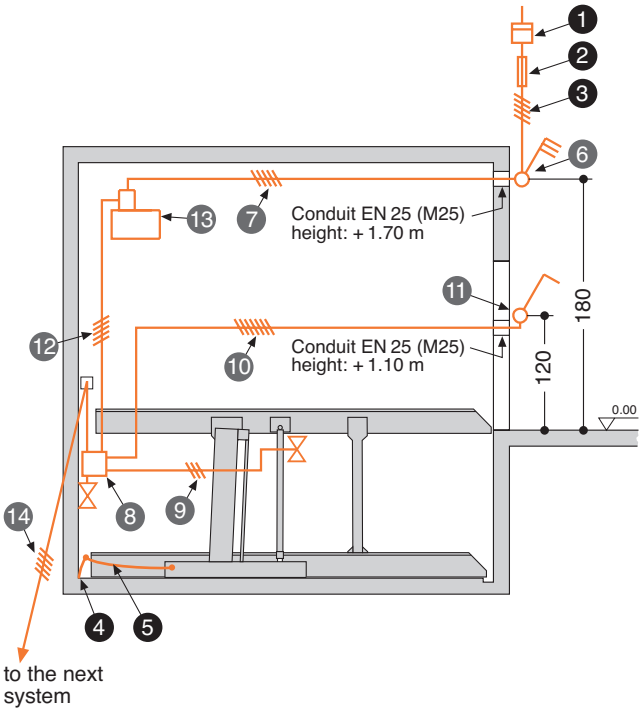


Free space only applicable if vehicle is parked forwards = FRONT FIRST and driver's door on the left side.

21 Dimensions B1, B2 and B3 see page 2

Electrical installation

Installation diagram



Electrical data (to be performed by the customer)

No.	Qunatity	Description	Position	Frequency
1	1	Electricity meter	in the supply line	
2	1	Main fuse: 3 x fuse 16 A (slow) or circuit breaker 3 x 16 A (trigger characteristic K or C)	in the supply line	1 per unit
3	1	Supply line 5 x 2.5 mm² (3 PH + N + PE) with marked wire and protective conductor	to main switch	1 per unit
4	every 10 m	Foundation earth connector	corner pit floor	
5	1	Equipotential bonding in accordance with DIN EN 60204 from foundation earth connector to the system		1 per system

Electrical data (included in delivery of KLAUS Multiparking)

No.	Description
6	Lockable main switch
7	Supply line 5 x 2,5 mm² (3 PH + N + PE) with marked wire and protective conductor
8	Terminal box
9	Control line 3 x 0.75 mm² (PH + N + PE)
10	Control line 7 x 1.5 mm² with marked wire and protective conductor
11	Operating device
12	Control line 5 x 1.5 mm² with marked wire and protective conductor
13	Hydraulic unit 3.0 kW, three-phase current, 400 V / 50 Hz
14	Control line 5 x 1.5 mm² with marked wire and protective conductor

Technical data

Field of application

By default, the system can only be used for a fixed number of users.
If different users use the system – only on the upper parking spaces – (e.g. short-time parkers in office buildings or hotels) the Multiparking system needs to be adjusted. If required, would you please contact us.

Units

Low-noise power units mounted to rubber-bonded-to metal mountings are installed. Nevertheless we recommend that parking system's garage be built separately from the dwelling.

Available documents

– wall recess plans
– maintenance offer/contract
– declaration of conformity
– test sheet on airborne and slid-borne sound

Environmental conditions

Environmental conditions for the area of multiparking systems: Temperature range –10 to +40° C. Relative humidity 50% at a maximum outside temperature of +40° C.
If lifting or lowering times are specified, they refer to an environmental temperature of +10° C and with the system set up directly next to the hydraulic unit. At lower temperatures or with longer hydraulic lines, these times increase.

Sound insulation

According to DIN 4109 (Sound insulation in buildings), para. 4, annotation 4, KLAUS Multiparkers are part of the building services (garage systems).

Normal sound insulation:

DIN 4109, para. 4, Sound insulation against noises from building services.

Table 4 in para. 4.1 contains the permissible sound level values emitted from building services for personal living and working areas. According to line 2 the maximum sound level in personal living andworking areas must not exceed 30 dB (A).
Noises created by users are not subject to the requirements (see table 4 , DIN 4109).

The following measures are to be taken to comply with this value:
– Sound protection package according to offer/order (KLAUS Multiparking GmbH)
– Minimum sound insulation of building R'_W = 57 dB (to be provided by customer)

Increased sound insulation (special agreement):

Draft DIN 4109-10, Information on planning and execution, proposals for increased sound insulation.

Agreement: Maximum sound level in personal living and working areas 25 dB (A). *Noises created by users are not subject to the requirements (see table 4, DIN 4109).*

The following measures are to be taken to comply with this value:
– Sound protection package according to offer/order (KLAUS Multiparking GmbH)
– Minimum sound insulation of building R'_W = 62 dB (to be provided by customer)

Note: User noises are noises created by individual users in our Multiparking systems. These can be noises from accessing the platforms, slamming of vehicle doors, motor and brake noises.

Building application documents

According to LBO and GaVo (garage regulations) the Multiparking systems are subject to approval. We will provide the required building application documents.

Care

To avoid damages resulting from corrosion, make sure to follow our cleaning and care instructions and to provide good ventilation of your garage.

Corrosion protection

See separate sheet regarding corrosion protection.

Railings

If the permissible drop opening is exceeded, railings are to be mounted on the systems. If there are traffic routes next to or behind the installations, railings compliant to DIN EN ISO 13857 must be installed by the customer. Railings must also be in place during construction.

CE Certification

The systems on offer comply with DIN EN 14010 and EC Machine Directive 2006/42/EC. Furthermore, this system underwent voluntary conformity testing by TÜV SÜD.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD Industrie Service

Certificate concerning the examination of conformity

Certificate no:	**KP 332**
Certification body:	TÜV SÜD Industrie Service GmbH Zertifizierungsstelle für Produkte der Fördertechnik Gottlieb-Daimler-Str. 7 70794 Filderstadt - Germany
Applicant / Certification holder:	KLAUS Multiparking GmbH Hermann-Krum-Str. 2 88319 Aitrach - Germany
Date of application:	2013-12-16
Manufacturer:	KLAUS Multiparking GmbH Hermann-Krum-Str. 2 88319 Aitrach - Germany
Product:	Equipment for power driven parking of motor vehicles
Type:	**MultiBase G82EB 2.000 kg and 2.600 kg** **MultiBase G82DB 2.000 kg**
Test laboratory:	TÜV SÜD Industrie Service GmbH Prüflaboratorium für Produkte der Fördertechnik Prüfbereich Maschinen der Fördertechnik Gottlieb-Daimler-Str. 7 70794 Filderstadt – Germany
Date and number of the test report / mark of conformity:	2014-10-01 **KP 332**
Test specifications:	- 2006 / 42 / EC, Annex I - DIN EN 14010
Validity:	**This Certificate is valid until 2019-09-30**
Result:	The equipment fulfills the requirements of the test specifications for the respective scope of application stated in the annex (page 1) of this certificate, keeping the mentioned conditions.
Date of issue:	2014-10-01

Certification body for lifts and cranes

Chadi Noureddine

TÜV SÜD Industrie Service GmbH

TÜV®

To be performed by the customer

Safety fences

Any constraints that may be necessary according to DIN EN ISO 13857 in order to provide protection for the park pits for pathways directly in front, next to or behind the unit. This is also valid during construction. Railings for the system are included in the series delivery when necessary.

Numbering of parking spaces

Consecutive numbering of parking spaces.

Building services

Any required lighting, ventilation, fire extinguishing and fire alarm systems as well as clarification and compliance with the relevant regulatory requirements.

Drainage

For the front area of the pit we recommend a drainage channel, which you connect to a floor drain system or sump (50 x 50 x 20 cm). The drainage channel may be inclined to the side, however not the pit floor itself (longitudinal incline is available). For reasons of environmental protection we recommend to paint the pit floor, and to provide oil and petrol separators in the connections to the public sewage network.

Strip footings

If due to structural conditions strip footings must be effected, the customer shall provide an accessible platform reaching to the top of the said strip footings to enable and facilitate themounting work.

Marking

According to DIN EN 14010, a warning that identifies this danger area must be placed in the entrance area that conforms to ISO 3864. This must be done according to EN 92/58/EWG for systems with a pit (platforms within the pit) 10 cm from the edge of the pit.

Wall cuttings

Any necessary wall cuttings according to page 1.

Electrical supply to the main switch / Foundation earth connector

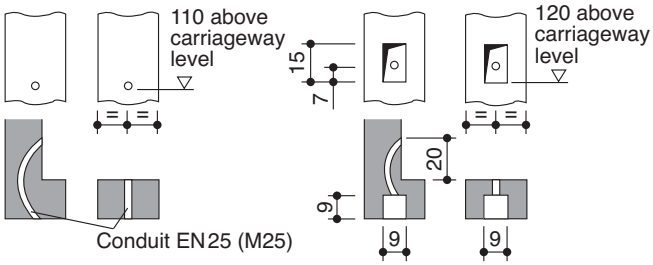
Suitable electrical supply to the main switch must be provided by the customer during installation. The functionality can be monitored on site by our fitters together with the electrician. If this cannot be done during installation for some reason for which the customer is responsible, the customer must commission an electrician at their own expense and risk.

In accordance with DIN EN 60204 (Safety of Machinery. Electrical Equipment), grounding of the steel structure is necessary, provided by the customer (distance between grounding max. 10 m).

Operating device

Cable conduits and recesses for operating device (for double wing doors: please contact the local agency of KLAUS Multiparking).

Operating device exposed **Operating device concealed**



If the following are not included in the quotation, they will also have to be provided / paid for by the customer:

- Mounting of contactor and terminal box to the wall valve, complete wiring of all elements in accordance with the circuit diagram
- Costs for final technical approval by an authorized body
- Main switch
- Control line from main switch to hydraulic unit

Description Single platform (EB) and Double platform (DB)

General description

Multiparking system providing independent parking spaces for 2 cars (EB), 2 x 2 cars (DB), one on top of the other each.

Dimensions are in accordance with the underlying dimensions of parking pit, height and width.

The upper parking bays are accessed horinzotally (installation deviation ± 1%), the lower parking bays inclined (by approx. 8 degrees).

Vehicles are positioned on each parking space using wheel stops on the right side (adjust according to operating instructions).

Operation via operating device with hold-to-run-device using master keys.

The operating elements are usually mounted either in front of the column or on the outside of the door frame

Operating instructions are attached to each operator's stand.

For garages with doors at the front of the parking system the special dimensional requirements have to be taken into account.

Multiparking system consisting of:

- 2 steel pillars with base elements (mounted on the floor)
- 2 sliding platforms (mounted to the steel pillars with sliding bearings)
- 2 platforms
- 1 mechanic synchronization control system (to ensure synchronous operation of the hydraulic cylinders while lowering and lifting the platform)
- 2 hydraulic cylinders
- 2 rigid supports (connect the platforms)
- 1 automatic hydraulic safety valve (prevents accidental lowering of the platform while accessing the platform)
- Dowels, screws, connecting elements, bolts, etc.
- The platforms and parking spaces are end-to-end accessible for parking!

Platforms consisting of:

- Platform base sections
- Adjustable wheel stops
- Canted access plates
- Side members
- Central side member [only DB]
- Cross members
- Safety railings – along the upper and lower platform (if required)
- Screws, nuts, washers, distance tubes, etc.

Hydraulic system consisting of:

- Hydraulic cylinder
- Solenoid valve
- Safety valve
- Hydraulic conduits
- Screwed joints
- High-pressure hoses
- Installation material

Electric system consisting of:

- Operating device (Emergency Stop, lock, 1 master key per parking space)
- Terminal box at wall valve

Hydraulic unit consisting of:

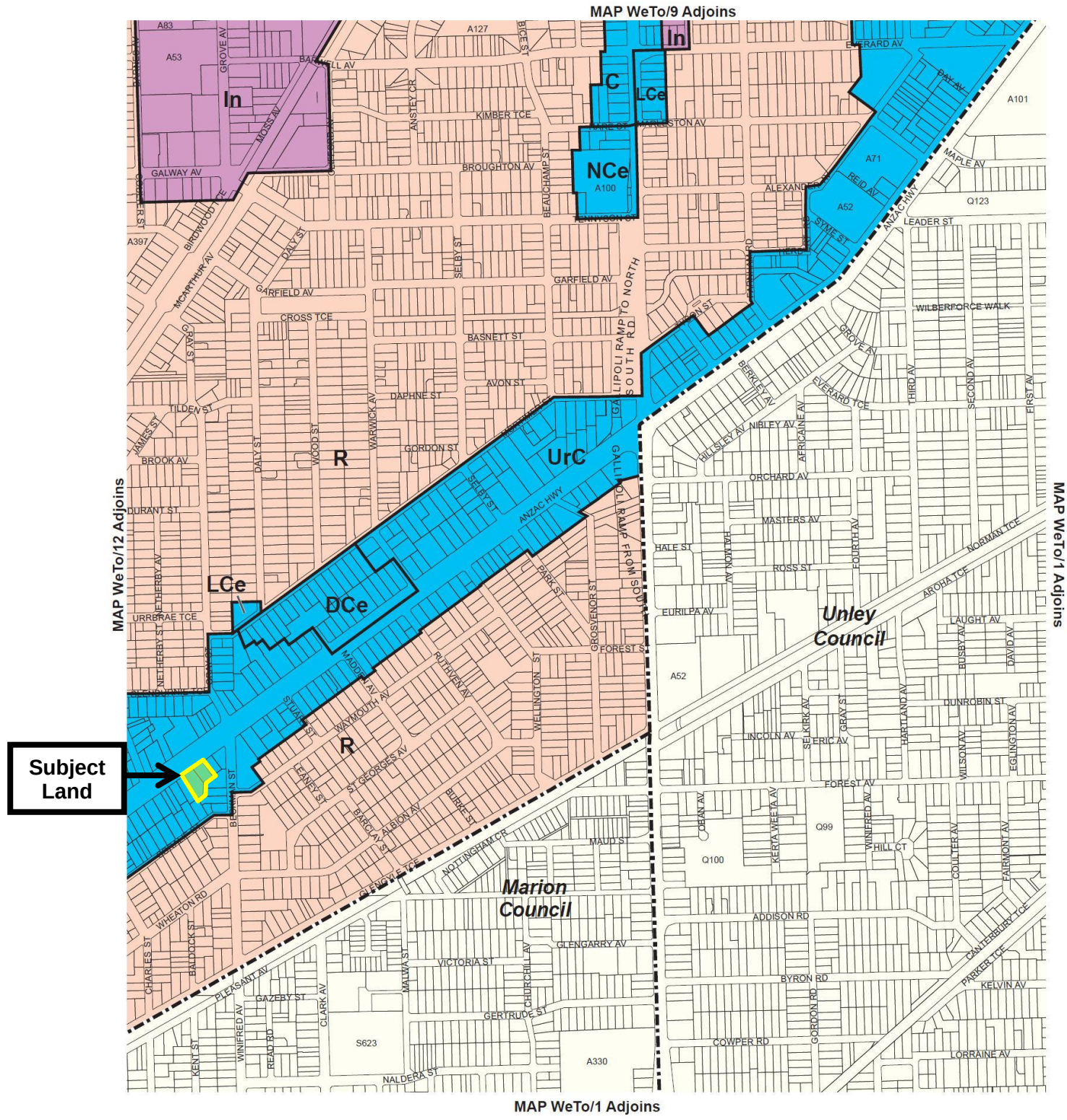
- Hydraulic power unit (low-noise, installed onto a console with a rubber-bonded-to-metal mounting)
- Hydraulic oil reservoir
- Oil filling
- Internal geared wheel pump
- Pump holder
- Clutch
- 3-phase-AC-motor
- Contactor (with thermal overcurrent relay and control fuse)
- Test manometer
- Pressure relief valve
- Hydraulic hoses (which reduce noise transmission onto the hydraulic pipe

We reserve the right to change this specification without further notice

KLAUS Multiparking reserves the right in the course of technical progress to use newer or other technologies, systems, processes, procedures or standards in the fulfillment of their obligations other than those originally offered provided the customer derives no disadvantage from their so doing.

STATE COMMISSION ASSESSMENT PANEL
A COMMITTEE OF THE STATE PLANNING COMMISSION

Agenda Item 2.2.1
8 November 2018



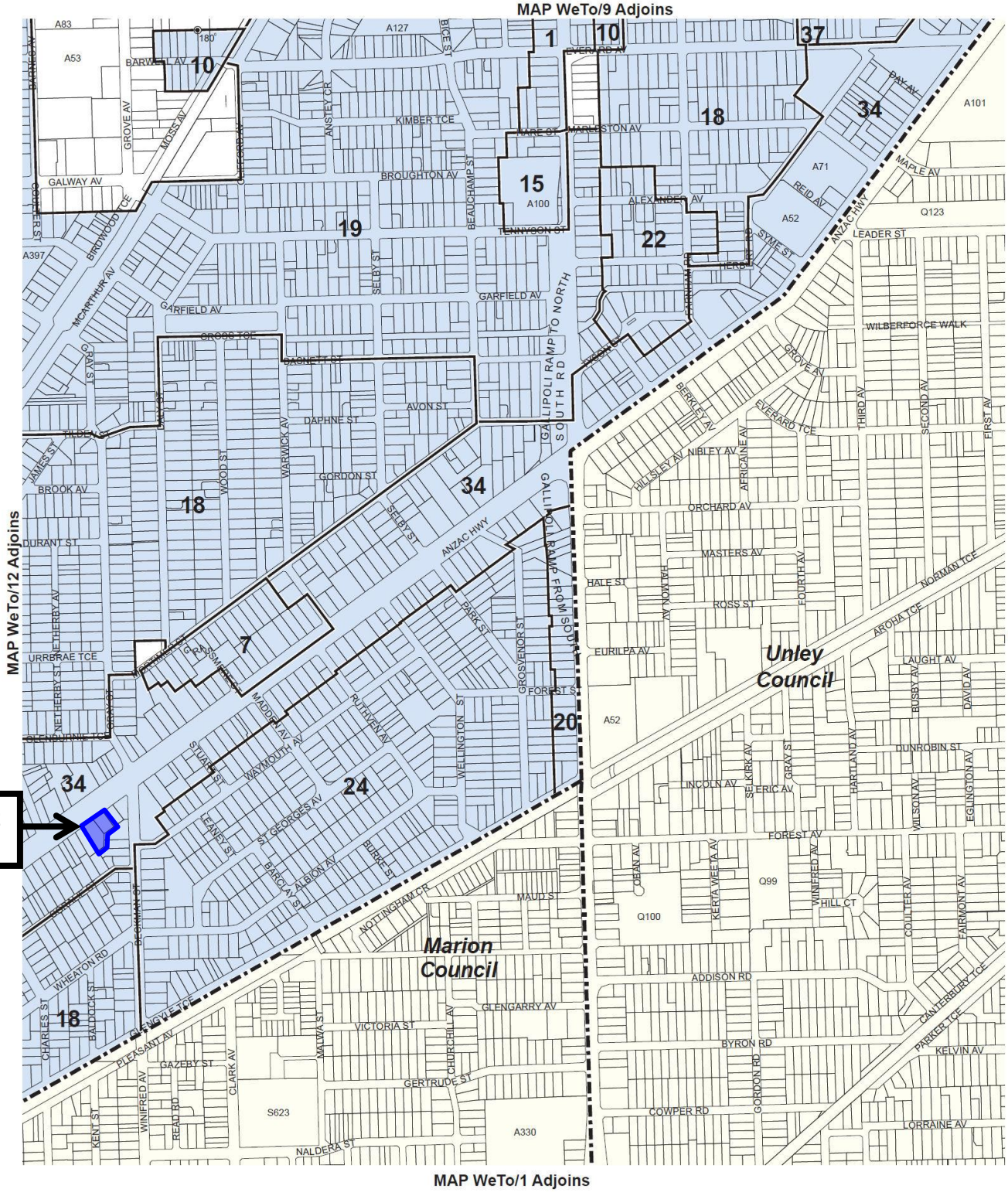
Zone Map WeTo/13

WEST TORRENS COUNCIL
Consolidated - 12 July 2018

STATE COMMISSION ASSESSMENT PANEL
A COMMITTEE OF THE STATE PLANNING COMMISSION

Agenda Item 2.2.1
8 November 2018

MAP WeTo/9 Adjoins



MAP WeTo/1 Adjoins

Lamberts Conformal Conic Projection, GDA94

Policy Area

1	Arterial Roads
10	Mixed Use
15	Tennyson Street
18	Medium Density
19	Medium Density
20	Low Density
22	Ashford Character
24	Glandore Character
34	Boulevard
37	Business
7	Kurralta Park

N

0 500 m

Policy Area Map WeTo/13

Policy Area Boundary
Development Plan Boundary

WEST TORRENS COUNCIL
Consolidated - 12 July 2018

Boulevard Policy Area 34

Refer to the *Map Reference Tables* for a list of the maps that relate to this policy area.

OBJECTIVES

1 Medium and high rise development framing the street, including mixed use buildings that contain shops, offices and commercial development at lower floors with residential land uses above.

2 A uniform streetscape edge established through a largely consistent front setback and tall, articulated building façades.

3 Development that does not compromise the transport functions of the road corridor.

4 Development that contributes to the desired character of the policy area.

DESIRED CHARACTER

The policy area will contain a mix of land uses that complement the function of Port Road as a strategic transport route linking central Adelaide with the north western suburbs, and Anzac Highway linking central Adelaide with Glenelg.

The redevelopment of existing commercial and industrial allotments into medium-to-high scale, mixed-use development will occur. Where development has a mix of land uses, non-residential activities such as shops, offices and consulting rooms will be located on lower levels with residential land uses above. In order to achieve the desired transformation of the policy area, dwellings other than detached dwellings will be the predominant form of residential development.

A mix of complementary land uses will assist in extending the usage of the policy area beyond normal working hours to enhance its vibrancy and safety.

Development will take place at medium and high densities, at a scale that is proportionate to the width of Port Road and Anzac Highway respectively. To achieve this, development will take place on large, often amalgamated allotments. Vehicle access points will be located off side streets and new rear laneways where possible, so that vehicle flows, safety and efficient pedestrian movement along Port Road and Anzac Highway are maintained.

Pedestrian areas will be enhanced to maximise safety and strong links will be made between development and tram stops along Port Road, and Bonython Park.

While the use and address of buildings will be designed to be easily interpreted when driving in a vehicle, the footpath will be sheltered with awnings, verandas and similar structures.

Buildings of up to eight storeys will have a strong presence to Port Road and Anzac Highway. At lower levels, buildings will have a human scale through the use of design elements such as balconies, verandas and canopies. Development on corner allotments will enhance the gateway function of such corners by providing strong, built-form edges combined with careful detailing at a pedestrian scale to both street frontages.

Podium elements, where higher floors of the building are set back further than lower level floors, may be used to improve air quality (through greater air circulation), as well as enhancing solar access, privacy and outlook for both the residents of the building and neighbours.

Buildings along Port Road will have zero setback from the front boundary in order to establish a strong and imposing presence to the road, while short front setbacks along Anzac Highway will allow for some landscaping to contribute to a more open landscaped character.

On-site vehicle parking will not be visible from Port Road and Anzac Highway, by locating parking areas behind building façades and shielding under croft parking areas with landscaping and articulated screens.

PRINCIPLES OF DEVELOPMENT CONTROL

Land use

1 Development should predominantly comprise mixed use buildings, with non-residential development at the ground and first floor and residential development above, and wholly residential buildings.

2 Residential Development should create a medium-to-high density urban environment incorproating residential flat buildings and dwellings in mixed-use buildings, and not lower density residential development such as detached dwellings.

Form and Character

3 Development should be consistent with the desired character for the policy area.

4 Shops or groups of shops contained in a single building, should have a maximum gross leasable floor space in the order of 2000 square metres.

5 The finished ground floor level should be at grade and level with the footpath provided that, where there is risk of flood impact, mitigation measures have been incorporated.

6 The ground floor of buildings should be built to dimensions including a minimum floor to ceiling height of 4.5 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.

Urban Corridor Zone

Refer to the *Map Reference Tables* for a list of the maps that relate to this zone.

OBJECTIVES

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.

2 Integrated, mixed use, medium and high rise buildings with ground floor uses that create active and vibrant streets with residential development above.

3 A mix of land uses that enable people to work, shop and access a range of services close to home.

4 Adaptable and flexible building designs that can accommodate changes in land use and respond to changing economic and social conditions.

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.

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.

7 Noise and air quality impacts mitigated through appropriate building design and orientation.

8 To identify and remediate contaminated land appropriate for its intended use.

9 Development that contributes to the desired character of the zone.

DESIRED CHARACTER

This zone will contain an innovative mix of medium density (45-70 dwellings per hectare) and high density (70-200 dwellings per hectare) residential development, together with community and employment land uses, along the Port Road, Anzac Highway, Richmond Road and Henley Beach Road corridors. The combination of land uses will vary within these corridors. Some locations will contain a genuine land use mix with ground floor shops, restaurants and offices, and upper level residential, while other areas will give primacy to residential development. Other parts of the zone will have a strong employment focus.

The function of main roads in the zone, particularly Port Road, Richmond Road and Anzac Highway, as major transport corridors will be protected by providing access to allotments from secondary road frontages and rear access ways as much as possible. Parking areas will be consolidated, shared (where possible) and screened from the street or public spaces. Allotments with car parking fronting Port Road, Anzac Highway, Richmond Road and Henley Beach Road will be redeveloped with built form closer to the road and reconfigured car parking areas.

As one of the key zones in the City of West Torrens where there will be transformation in built form, new buildings will be recognised for their design excellence. These buildings will establish an interesting pedestrian environment and human-scale at ground level through careful building articulation and fenestration, verandas, balconies, canopies and landscaping. In general, the greatest height, mass and intensity of development will be focussed at the main road frontage. Buildings of 3 or more storeys will be the predominant built form. It is for these reasons that dwellings other than detached dwellings will be the predominant form of residential development.

Overlooking, overshadowing and noise impacts will be moderated through careful design. Impacts on adjoining zones where development is lower in scale and intensity will be minimised through transition of building heights and setbacks, judicious design and location of windows and balconies, and the use of landscaping. The transition of building heights and setbacks, and judicious design is especially important adjacent Character Policy Areas, including those Character Policy Areas at Glandore and Ashford. The use of blank walls in these transitional areas, especially at the rear and side of allotments, will be avoided. Plant and service equipment will be enclosed and screened from view from the street and neighbouring allotments.

Where buildings are set back from main roads, landscaping will contribute to a pleasant pedestrian environment and provide an attractive transition between the public and private realm. Large scale development in the zone will facilitate the establishment of areas of communal and public open space, and create links with existing movement patterns and destinations in the zone. Front fencing in the zone will be kept low and/or visually permeable.

Some parts of the zone, including allotments in Thebarton and Keswick, are potentially contaminated because of previous and current industrial activities. In these circumstances, development is expected to occur on a precautionary basis if site contamination investigations identify potential site contamination, particularly where it involves sensitive uses such residential development.

The Thebarton brewery has potential to cause nuisance to future users and residents within this zone through noise and odour. To mitigate potential adverse impacts, residential development north of Smith Street that is likely to be sensitive to brewery operations should generally be avoided unless

interface mitigation measures have been implemented (or will be implemented within an acceptable period) such that the anticipated impacts are within acceptable limits.

Noise and air amenity with the zone is not expected to be equivalent to that expected from living in a purely residential zone.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

1 The following types of development, or combination thereof, are envisaged in the zone:

- affordable housing
- aged persons accommodation
- community centre
- consulting room
- dwelling
- educational establishment
- entertainment venue
- licensed premises
- office
- pre-school
- primary school
- residential flat building
- retirement village
- shop or group of shops
- supported accommodation
- tourist accommodation.

2 Development listed as non-complying is generally inappropriate.

3 Residential development on land within the zone north of Smith Street should be avoided unless interface measures for noise and odour have been implemented (or will be implemented within an acceptable period) at the source such that the anticipated impacts are within acceptable limits.

Form and Character

4 Development should be consistent with the desired character for the zone.

5 Residential development (other than residential development in mixed use buildings on allotments less than 5000 square metres), should achieve a minimum net residential allotment density in accordance with the following:

Policy Area	Minimum net residential site density
Boulevard Policy Area 34	100 dwellings per hectare net
High Street Policy Area 35	70 dwellings per hectare net
Transit Living Policy Area 36	45 dwellings per hectare net
Business Policy Area 37	No minimum

6 Vehicle parking should be located to the rear of development or not be visible from public land along the primary road frontage.

Design and Appearance

7 Buildings should maintain a pedestrian scale at street level, and should:

(a) include a clearly defined podium, or street wall with a parapet, and a maximum building height of 2 storeys from natural ground level

(b) have levels above the defined podium or street wall setback a minimum of 2 metres from that wall.

8 Buildings on allotments with a frontage greater than 10 metres should be well articulated through variations in forms, materials, openings and colours.

9 Buildings should be designed to:

(a) enable suitable sunlight access to public open space

(b) overlook or orientate towards public open space and defined pedestrian and cycle routes.

10 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.

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

(a) from side streets or rear access ways

(b) via co-ordinated through-property access rights of way or common rear vehicle parking areas.

12 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

13 Except where airport building height restrictions prevail, ~~or~~ the interface height provisions require a lesser height, building heights (excluding any rooftop mechanical plant or equipment) should be consistent with the following parameters:

Policy area	Maximum building height (above natural ground height)
Boulevard Policy Area 34	Allotments abutting **Residential Character Glandore Policy Area 24**, and allotments between Syme Street and South Road: 3 storeys and 12.5 metres All other allotments: 8 storeys and up to 32.5 metres
High Street Policy Area 35	Allotments west of Marion Road: 3 storeys and up to 12.5 metres Allotments between South Road and Marion Road: 4 storeys and up to 16.5 metres All allotments east of South Road: 6 storeys and up to 24.5 metres

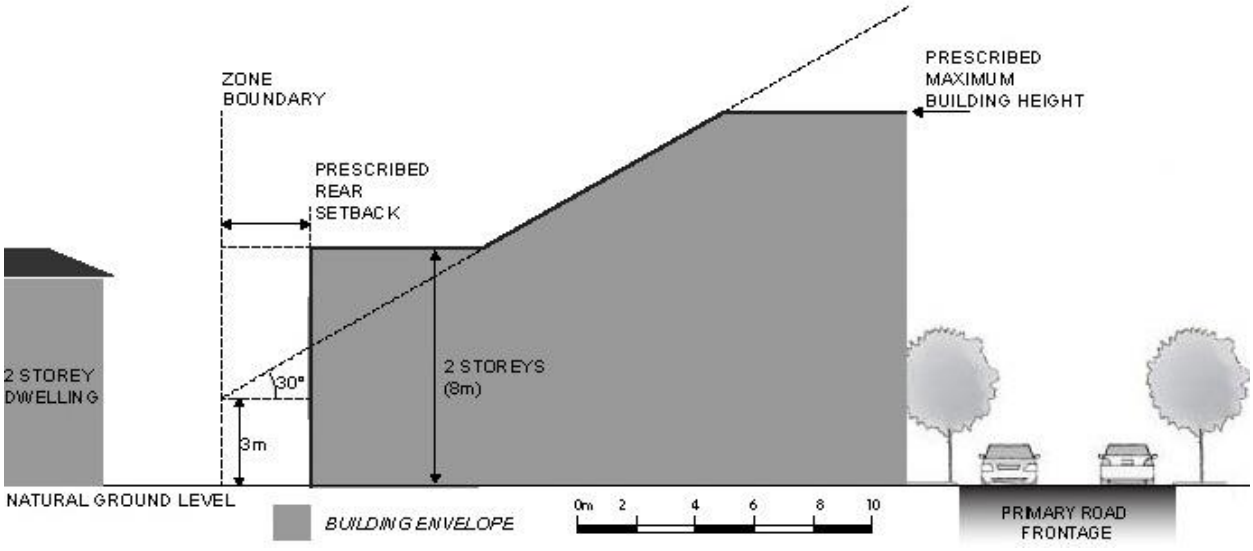
Policy area	Maximum building height (above natural ground height)
Transit Living Policy Area 36	Allotments adjoining Henley Beach Road west of Marion Road: 3 storeys and up to 12.5 metres Allotments adjoining Henley Beach Road east of Marion Road: 4 storeys and up to 16.5 metres All other allotments: 6 storeys and up to 24.5 metres
Business Policy Area 37	6 storeys and up to 24.5 metres

14 Building(s) on land that is directly adjacent to or facing the Adelaide Parklands should be a minimum height of 4 storeys.

Interface Height Provisions

15 Any portion of a development above two storeys (8 metres) in height should be constructed within a building envelope provided by a 30 degree plane measured from a point 3 metres above natural ground level at the zone boundary (except where this boundary is a primary road frontage), as illustrated in Figure 1, unless it is demonstrated that the proposed development minimises interface impacts including from building massing, overshadowing and overlooking with adjoining residential development:

Figure 1



16 To minimise overshadowing of sensitive development outside of the zone, buildings should ensure that:

(a) north-facing windows to habitable rooms of existing dwellings in adjacent zones receive at least 3 hours of direct sunlight over a portion of their surface between 9.00 am and 3.00 pm on 21 June

(b) ground level open space of existing residential buildings in adjacent zones receive direct sunlight for a minimum of 2 hours between 9.00 am and 3.00 pm on 21 June to at least the smaller of the following:

(i) half of the existing ground level open space

(ii) 35 square metres of the existing ground level open space (with at least one of the area's dimensions measuring no less than 2.5 metres)

(c) sunlight to solar panels should be maintained for a minimum of 2 consecutive hours between 9.00 am and 3.00 pm on 22 June.

Setbacks from Road Frontages

17 Buildings (excluding verandahs, porticos and the like) should be set back from the primary road frontage in accordance with the following parameters:

Policy area	Minimum setback from the primary road frontage where it is Port Road, Anzac Highway, Richmond Road or Henley Beach Road	Minimum setback from the primary road frontage in all other cases
Boulevard Policy Area 34	No minimum at Port Road 3 metres at Anzac Highway	2 metres
High Street Policy Area 35	No minimum	2 metres
Transit Living Policy Area 36	3 metres	3 metres
Business Policy Area 37	3 metres	3 metres

18 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 34	No minimum	No minimum where the access way is 6.5 metres wide 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 35	No minimum	No minimum where the access way is 6.5 metres wide 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

Designated Area	Minimum setback from secondary road	Minimum setback from a rear access way
Transit Living Policy Area 36	2 metres	No minimum where the access way is 6.5 metres wide 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
Business Policy Area 37	2 metres	No minimum where the access way is 6.5 metres wide 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

Other Setbacks

19 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 street boundary)
Boulevard Policy Area 34	3 metres where the subject land directly abuts an allotment of a different zone No minimum in all other cases	For allotments with a frontage width of 20 metres or less: no minimum up to a height of 2 storeys and 3 metres above this height. For allotments with a frontage width of more than 20 metres: 3 metres.
High Street Policy Area 35	3 metres where the subject land directly abuts an allotment of a different zone No minimum in all other cases	No minimum
Transit Living Policy Area 36	3 metres where the subject land directly abuts an allotment of a different zone No minimum in all other cases	For allotments with a frontage width of 20 metres or less: no minimum up to a height of 2 storeys and 3 metres above this height For allotments with a frontage width of more than 20 metres: 3 metres

Designated area	Minimum setback from rear allotment boundary	Minimum setback from side boundaries (where not on a street boundary)
Business Policy Area 37	3 metres where the subject land directly abuts an allotment of a residential zone No minimum in all other cases	For allotments with a frontage width of 20 metres or less: no minimum up to a height of 2 storeys and 3 metres above this height For allotments with a frontage width of more than 20 metres: 3 metres

Vehicle Parking

20 Development should provide off-street vehicle parking and specifically marked accessible car parking places to meet anticipated demand in accordance with *Table WeTo/6 - Off Street Vehicle Parking Requirements for Designated Areas*.

21 Loading areas and designated parking spaces for service vehicles should:

(a) be provided within the boundary of the allotment

(b) not be located where there is parking provided for any other purpose.

22 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.

23 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 allotment.

Land Division

24 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.

General Section

Crime Prevention

OBJECTIVES

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 be designed to maximise surveillance of public spaces through the incorporation of clear lines of sight, appropriate lighting and the use of visible permeable barriers wherever practicable.

2 Buildings should be designed to overlook public and communal streets and public open space to allow casual surveillance.

3 Development should provide a robust environment that is resistant to vandalism and graffiti.

4 Development should provide lighting in frequently used public spaces including those:

(a) along dedicated cyclist and pedestrian pathways, laneways and access routes

(b) around public facilities such as toilets, telephones, bus stops, seating, litter bins, automatic teller machines, taxi ranks and car parks.

5 Development, including car park facilities should incorporate signage and lighting that indicate the entrances and pathways to, from and within sites.

6 Landscaping should be used to assist in discouraging crime by:

(a) screen planting areas susceptible to vandalism

(b) planting trees or ground covers, rather than shrubs, alongside footpaths

(c) planting vegetation other than ground covers a minimum distance of two metres from footpaths to reduce concealment opportunities.

7 Site planning, buildings, fences, landscaping and other features should clearly differentiate public, communal and private areas.

8 Buildings should be designed to minimise and discourage access between roofs, balconies and windows of adjoining dwellings.

9 Development should avoid pedestrian entrapment spots and movement predictors (eg routes or paths that are predictable or unchangeable and offer no choice to pedestrians).

Design and Appearance

OBJECTIVES

1 Development of a high design standard and appearance that responds to and reinforces positive aspects of the local environment and built form.

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 and proportion

(b) external materials, patterns, colours and decorative elements

(c) roof form and pitch

(d) façade articulation and detailing

(e) verandas, eaves, parapets and window screens.

2 The external walls and roofs of buildings should not incorporate highly reflective materials which will result in glare to neighbouring properties or drivers.

3 Where a building is sited on or close to a side boundary, the side boundary wall should be sited and limited in length and height to minimise:

(a) the visual impact of the building as viewed from adjoining properties

(b) overshadowing of adjoining properties and allow adequate sun light to neighbouring buildings.

4 Structures located on the roofs of buildings to house plant and equipment should be screened from view and should form an integral part of the building design in relation to external finishes, shaping and colours.

5 Balconies should:

(a) be integrated with the overall form and detail of the building

(b) include balustrade detailing that enables line of sight to the street

(c) be recessed where wind would otherwise make the space unusable

(d) be self-draining and plumbed to minimise runoff.

6 Transportable buildings and buildings which are elevated on stumps, posts, piers, columns or the like, should have their suspended footings enclosed around the perimeter of the building, and the use of verandas, pergolas and other suitable architectural detailing to give the appearance of a permanent structure.

Development Adjacent Heritage Places

7 The design of multi-storey buildings should not detract from the form and materials of adjacent State and local heritage places listed in *Table WeTo/5 – State Heritage Places* *or in* *Table WeTo/4 – Local Heritage Places*.

8 Development on land adjacent to a State or local heritage place, as listed in *Table WeTo/5 – State Heritage Places* *or in* *Table WeTo/4 – Local Heritage Places*, should be sited and designed to reinforce the historic character of the place and maintain its visual prominence.

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 main internal living areas

(b) ground-level private open space

(c) upper-level private balconies that provide the primary open space area for a dwelling

(d) 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

12 Buildings (other than ancillary buildings, group dwellings or buildings on allotments with a battle axe configuration) should be designed so that the main façade faces the primary street frontage of the land on which they are situated.

13 Buildings, landscaping, paving and signage should have a co-ordinated 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.

16 Where zero or minor setbacks are desirable, development should incorporate shelter over footpaths to enhance the quality of the pedestrian environment.

17 Multi level vehicle parking areas within buildings should be designed, sited and screened from public view by an appropriate combination of built form, landscaping and/or visual art while still allowing for natural ventilation within these structures.

Energy Efficiency

OBJECTIVES

1 Development designed and sited to conserve energy.

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.

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.

Heritage Places

OBJECTIVES

4 Conservation of the setting of State and local heritage places.

PRINCIPLES OF DEVELOPMENT CONTROL

5 New buildings should not be placed or erected between the front street boundary and the façade of existing State or local heritage places.

6 Development that materially affects the context within which the heritage place is situated should be compatible with the heritage place. It is not necessary to replicate historic detailing, however design elements that should be compatible include, but are not limited to:

(a) scale and bulk

(b) width of frontage

(c) boundary setback patterns

(d) proportion and composition of design elements such as roof lines, openings, fencing and landscaping

(e) colour and texture of external materials.

Interface between Land Uses

OBJECTIVES

1 Development located and designed to minimise adverse impact and conflict between land uses.

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.

Landscaping, Fences and Walls

OBJECTIVES

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 Development should incorporate open space and landscaping and minimise hard paved surfaces in order to:

(a) complement built form and reduce the visual impact of larger buildings (eg taller and broader plantings against taller and bulkier building components)

(b) enhance the appearance of road frontages

(c) screen service yards, loading areas and outdoor storage areas

(d) minimise maintenance and watering requirements

(e) enhance and define outdoor spaces, including car parking areas

(f) maximise shade and shelter

(g) assist in climate control within and around buildings

(h) minimise heat absorption and reflection

(i) maintain privacy

(j) maximise stormwater reuse

(k) complement existing vegetation, including native vegetation

(l) contribute to the viability of ecosystems and species

(m) promote water and biodiversity conservation.

2 Landscaping should:

(a) include the planting of drought tolerant species, including locally indigenous species where appropriate

(b) be oriented towards the street frontage

(c) result in the appropriate clearance from powerlines and other infrastructure being maintained.

3 Landscaping should not:

(a) unreasonably restrict solar access to adjoining development

(b) cause damage to buildings, paths and other landscaping from root invasion, soil disturbance or plant overcrowding

(c) introduce pest plants

(d) increase the risk of bushfire

(e) remove opportunities for passive surveillance

(f) increase leaf fall in watercourses

(g) increase the risk of weed invasion

(h) obscure driver sight lines

(i) create a hazard for train or tram drivers by obscuring sight lines at crossovers.

4 A minimum of 10 per cent of a development site should be landscaped. The development site refers to the land which incorporates a development and all the features and facilities associated with that development, such as outbuildings, driveways, parking areas, landscaped areas, service yards and fences. Where a number of buildings or dwellings have shared use of such features and facilities, the development site incorporates all such buildings or dwellings and their shared features and facilities.

Medium and High Rise Development (3 or More Storeys)

OBJECTIVES

1 Medium and high rise development that provides housing choice and employment opportunities.

2 Residential development that provides a high standard of amenity and adaptability for a variety of accommodation and living needs.

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.

4 Development that integrates built form within high quality landscapes to optimize amenity, security and personal safety for occupants and visitors.

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.

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.

7 Buildings designed and sited to be energy and water efficient.

PRINCIPLES OF DEVELOPMENT CONTROL

Design and Appearance

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 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.

Site Facilities and Storage

22 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.

23 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.

24 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.

25 The size of lifts, lobbies and corridors should be sufficient to accommodate movement of bicycles, strollers, mobility aids and visitor waiting areas.

Residential Development

OBJECTIVES

1 Safe, convenient, pleasant and healthy-living environments that meet the full range of needs and preferences of the community.

2 An increased mix in the range and number of dwelling types available within urban boundaries to cater for changing demographics, particularly smaller household sizes and supported accommodation.

3 Medium and high density residential development in areas close to activity centres, public and community transport and public open spaces.

4 The revitalisation of residential areas to support the viability of community services and infrastructure.

5 Affordable housing, student housing and housing for aged persons provided in appropriate locations.

PRINCIPLES OF DEVELOPMENT CONTROL

1 Residential allotments and sites should maximise solar orientation and have the area and dimensions to accommodate:

(a) the siting and construction of a dwelling and associated ancillary outbuildings

(b) the provision of landscaping and private open space

(c) convenient and safe vehicle, pedestrian and cycling access and parking

(d) water sensitive design systems that enable the storage, treatment and reuse of stormwater.

2 Buildings on battleaxe allotments that do not have frontage to a public road should be single storey and be designed to maintain the privacy of adjoining properties.

3 Residential allotments should be of varying sizes to encourage housing diversity.

Design and Appearance

4 Building appearance should be compatible with the desired character statement of the relevant zone, policy area or precinct, in terms of built form elements such as:

(a) building height

(b) building mass and proportion

(c) external materials, patterns, textures, colours and decorative elements

(d) ground floor height above natural ground level

(e) roof form and pitch

(f) facade articulation and detailing and window and door proportions

(g) verandas, eaves and parapets

(h) driveway crossovers, fence style and alignment.

5 Residential development should avoid undue repetition of style and external appearance.

6 Dwellings and accommodation at ground floor level should contribute to the character of the locality and create active, safe streets by incorporating one or more of the following:

(a) front landscaping or terraces that contribute to the spatial and visual structure of the street while maintaining adequate privacy for occupants

(b) individual entries for ground floor accommodation

(c) opportunities to overlook adjacent public space.

7 Residential development should be designed to ensure living rooms have an external outlook.

8 Entries to dwellings or foyer areas should be clearly visible from the street, or access ways that they face to enable visitors to easily identify individual dwellings.

9 Residential development should provide a high quality living environment by ensuring the following minimum internal floor areas (including internal storage areas but not including balconies and car parking):

(a) studio (where there is no separate bedroom): 37 square metres

(b) 1 bedroom dwelling/apartment: 50 square metres

(c) 2 bedroom dwelling/apartment: 75 square metres

(d) 3+ bedroom dwelling/apartment: 100 square metres.

Overshadowing

10 The design and location of buildings should ensure that direct winter sunlight is available to adjacent dwellings, with particular consideration given to:

(a) windows of habitable rooms, particularly living areas

(b) ground-level private open space

(c) upper-level private balconies that provide the primary open space area for any dwelling

(d) access to solar energy.

11 Development should ensure that north-facing windows to habitable rooms of existing dwelling(s) on the same allotment, and on adjacent allotments, receive at least 3 hours of direct sunlight over a portion of their surface between 9.00 am and 5.00 pm on the 21 June.

12 Development should ensure that ground-level open space of existing buildings receives direct sunlight for a minimum of two hours between 9.00 am and 3.00 pm on 21 June to at least the smaller of the following:

(a) half of the existing ground-level open space

(b) 35 square metres of the existing ground-level open space (with at least one of the area's dimensions measuring 2.5 metres).

13 Development should not increase the overshadowed area by more than 20 per cent in cases where overshadowing already exceeds these requirements.

Garages, Carports and Outbuildings

14 Garages, carports and residential outbuildings should have a roof form and pitch, building materials and detailing that complements the associated dwelling.

15 Residential outbuildings, including garages and sheds, should not be constructed unless in association with an existing dwelling.

16 Garages, carports and residential outbuildings should not dominate the streetscape and not adversely impact on the safety of road users and pedestrians, and be designed within the following parameters:

Parameter	Value
Maximum floor area	60 square metres
Maximum wall height	3 metres
Maximum building height	5 metres
Minimum setback from a primary road frontage	Garages and carports sited no closer to the primary road frontage than any part of its associated dwelling Outbuildings should not protrude forward of any part of its associated dwelling
Minimum setback from a secondary road frontage	0.9 metres or in line with the existing dwelling
Maximum length along the boundary	8 metres or 50 per cent of the length along that boundary (whichever is the lesser)
Maximum frontage width of garage or carport with an opening facing a rear access lane	No maximum
Maximum frontage width of garage or carport opening facing the street	6 metres or 50 per cent of the allotment frontage, whichever is less

17 Carports and garages should be set back not less than 1 metre from any rear lane boundary to facilitate vehicle manoeuvring.

Private Open Space

18 Private open space (available for exclusive use by residents of each dwelling) should be provided for each dwelling and should be sited and designed:

(a) to be accessed directly from the internal living areas of the dwelling

(b) to be generally at ground level (other than for residential flat buildings) and to the side or rear of a dwelling and screened for privacy

(c) to take advantage of, but not adversely affect, natural features of the site

(d) to minimise overlooking from adjacent buildings

(e) to achieve separation from bedroom windows on adjoining sites

(f) to have a northerly aspect to provide for comfortable year round use

(g) not to be significantly shaded during winter by the associated dwelling or adjacent development

(h) to be partly shaded in summer

(i) to minimise noise or air quality impacts that may arise from traffic, industry or other business activities within the locality

(j) to have sufficient area and shape to be functional, taking into consideration the location of the dwelling, and the dimension and gradient of the site.

19 Dwellings at ground level should provide private open space in accordance with the following table:

Site area per dwelling (square metres)	**Minimum area excluding any area at ground level at the front of the dwelling (square metres)**	**Minimum dimension (metres)**	**Minimum area provided at the rear or side of the dwelling, directly accessible from a habitable room (square metres)**
<300	24, of which 8 may comprise balconies, roof patios and the like, provided they have a minimum dimension of 2 metres	3 (excluding balconies)	16
300-500	60, of which 10 may comprise balconies, roof patios and the like, provided they have a minimum dimension of 2 metres	4	16
>500	80, of which 10 may comprise balconies, roof patios and the like, provided they have a minimum dimension of 2 metres	4	24

20 Private open space should not include driveways, effluent drainage areas, rubbish bin storage areas, sites for rainwater tanks and other utility areas, sites for outbuildings, and common areas such as parking areas and communal open space.

21 Private open space at ground level should be designed to provide a consolidated area of deep soil (an area of natural ground which excludes areas where there is a structure underneath, pools and non-permeable paved areas) to:

(a) assist with ease of drainage

(b) allow for effective deep planting

(c) reduce urban heat loading and improve micro-climatic conditions around sites and buildings.

22 Dwellings located above ground level should provide private open space in accordance with the following table:

Dwelling type	**Minimum area of private open space**
Studio (where there is no separate bedroom)	No minimum requirement
1 bedroom dwelling	8 square metres

Dwelling type	Minimum area of private open space
2 bedroom dwelling	11 square metres
3+ bedroom dwelling	15 square metres

23 Private open space located above ground level should have a minimum dimension of 2 metres and be directly accessible from a habitable room.

24 Private open space may be substituted for the equivalent area of communal open space where:

(a) at least 50 per cent of the communal open space is visually screened from public areas of the development

(b) ground floor communal space is overlooked by habitable rooms to facilitate passive surveillance

(c) it contains landscaping and facilities that are functional, attractive and encourage recreational use.

Communal Open Space

25 Communal open space should be shared by more than one dwelling, not be publicly accessible and exclude:

(a) private open space

(b) public rights of way

(c) private streets

(d) parking areas and driveways

(e) service and storage areas

(f) narrow or inaccessible strips of land.

26 Communal open space should only be located on elevated gardens or roof tops where the area and overall design is useful for the recreation and amenity needs of residents and where it is designed to:

(a) address acoustic, safety, security and wind effects

(b) minimise overlooking into habitable room windows or onto the useable private open space of other dwellings

(c) facilitate landscaping and food production

(d) be integrated into the overall façade and composition of buildings.

Visual Privacy

27 Except for buildings of 3 or more storeys, upper level windows, balconies, terraces and decks that overlook habitable room windows or private open space of dwellings should maximise visual privacy through the use of measures such as sill heights of not less than 1.7 metres or permanent screens having a height of 1.7 metresabove finished floor level.

Noise

28 Noise generated by fixed noise sources such as air conditioning units and pool pumps should be located, designed and attenuated to avoid nuisance to adjoining landowners and occupiers.

29 External noise and artificial light intrusion into bedrooms should be minimised by separating or shielding these rooms from:

(a) active communal recreation areas, parking areas and vehicle access ways

(b) service equipment areas and fixed noise sources on the same or adjacent sites.

Site Facilities and Storage

30 Site facilities for group dwellings, multiple dwellings and residential flat buildings should include:

(a) mail box facilities sited close to the major pedestrian entrance to the site

(b) bicycle parking for residents and visitors (for developments containing more than 6 dwellings)

(c) household waste and recyclable material storage areas away from dwellings.

31 A dwelling should incorporate a minimum storage area of 8 cubic metres for goods and chattels, other than food and clothing, within at least one of the following:

(a) a non habitable room of the dwelling

(b) a garage, carport or outbuilding

(c) an on-site communal facility.

Transportation and Access

OBJECTIVES

1 A comprehensive, integrated, affordable and efficient air, rail, sea, road, cycle and pedestrian transport system that will:

(a) provide equitable access to a range of public, community and private transport services for all people

(b) ensure a high level of safety

(c) effectively support the economic development of the State

(d) have minimal negative environmental and social impacts

(e) maintain options for the introduction of suitable new transport technologies.

2 Development that:

(a) provides safe and efficient movement for all transport modes

(b) ensures access for vehicles including emergency services, public infrastructure maintenance and commercial vehicles

(c) provides off-street parking

(d) is appropriately located so that it supports and makes best use of existing transport facilities and networks

(e) provides convenient and safe access to public transport stops.

3 A road hierarchy that promotes safe and efficient transportation in an integrated manner throughout the State.

4 Provision of safe, pleasant, accessible, integrated and permeable pedestrian and cycling networks that are connected to the public transport network.

5 Safe and convenient freight movement throughout the State.

PRINCIPLES OF DEVELOPMENT CONTROL

Land Use

1 Land uses arranged to support the efficient provision of sustainable transport networks and encourage their use.

Movement Systems

2 Development should be integrated with existing transport networks, particularly major rail, road and public transport corridors as shown on *Location Maps* and *Overlay Maps – Transport*, and designed to minimise its potential impact on the functional performance of the transport network.

3 Transport corridors should be sited and designed so as to not unreasonably interfere with the health and amenity of adjacent sensitive land uses.

4 Roads should be sited and designed to blend with the landscape and be in sympathy with the terrain.

5 Land uses that generate large numbers of visitors such as shopping centres, places of employment, schools, hospitals and medium to high density residential uses should be located so that they can be serviced by the public transport network and encourage walking and cycling.

6 Development generating high levels of traffic, such as schools, shopping centres and other retail areas, entertainment and sporting facilities, should incorporate passenger pick-up and set down areas. The design of such areas should ensure interference to existing traffic is minimised and give priority to pedestrians, cyclists and public and community transport users.

7 The location and design of public and community transport set-down and pick-up points should maximise safety and minimise the isolation and vulnerability of users.

8 Development should provide safe and convenient access for all anticipated modes of transport.

9 Development at intersections, pedestrian and cycle crossings, and crossovers to allotments should maintain or enhance sightlines for motorists, cyclists and pedestrians to ensure safety for all road users and pedestrians.

10 Driveway crossovers affecting pedestrian footpaths should maintain the level and surface colour of the footpath.

11 Driveway crossovers should be separated and the number minimised to optimise the provision of on-street visitor parking (where on-street parking is appropriate).

12 Development should be designed to discourage commercial and industrial vehicle movements through residential streets and adjacent other sensitive land uses.

13 Industrial/commercial vehicle movements should be separated from passenger vehicle car parking areas.

14 Development should provide for the on-site loading, unloading and turning of all traffic, including any waste collection vehicles, likely to be generated.

15 The road network in new residential areas should be designed to allow for bus routes with convenient connection to adjoining public transport routes (including future routes) which allow for ease of movement of buses between areas and facilitate linkages between activity centres within and external to the new areas.

Cycling and Walking

16 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.

17 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 as depicted in *Overlay Maps – Transport*.

18 New developments should give priority to and not compromise existing designated bicycle routes.

19 Where development coincides with, intersects or divides a proposed bicycle route or corridor, development should incorporate through-access for cyclists.

20 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 WeTo/7 - Off-street Bicycle Parking Requirements for Urban Corridor Zone*.

21 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.

22 Pedestrian and cycling facilities and networks should be designed and provided in accordance with relevant provisions of the *Australian Standards and Austroads Guides*.

Access

23 Development should have direct access from an all weather public road.

24 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.

25 Development should not restrict access to publicly owned land such as recreation areas.

26 The number of vehicle access points onto arterial roads shown on *Overlay Maps – Transport* should be minimised and, where possible, access points should be:

(a) limited to local roads (including rear lane access)

(b) shared between developments.

27 Development with access from roads with existing or projected traffic volumes exceeding 6000 vehicles per day should be sited to avoid the need for vehicles to reverse onto or from the road.

28 Development with access from arterial roads or roads as shown on *Overlay Maps - Transport* should be sited to avoid the need for vehicles to reverse on to or from the road.

29 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.

30 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 runoff

(d) avoid the removal of existing vegetation

(e) be consistent with *Australian Standard AS 2890 Parking facilities*.

31 Gates across a driveway should be set back at least 5.5 metres from the boundary with an arterial road.

Access for People with Disabilities

32 Development should be sited and designed to provide convenient access for people with a disability.

33 Where appropriate and practical, development should provide for safe and convenient access to the coast and beaches for disabled persons.

Vehicle Parking

34 Development should provide off-street vehicle parking and specifically marked disabled car parking places to meet anticipated demand in accordance with *Table WeTo/2 - Off Street Vehicle Parking Requirements*.

35 Development should be consistent with *Australian Standard AS 2890 Parking facilities*.

36 Vehicle parking areas should be sited and designed to:

(a) facilitate safe and convenient pedestrian linkages to the development and areas of significant activity or interest in the vicinity of the development

(b) include safe pedestrian and bicycle linkages that complement the overall pedestrian and cycling network

(c) facilitate safe and convenient traffic circulation

(d) result in minimal conflict between customer and service vehicles

(e) avoid the necessity to use public roads when moving from one part of a parking area to another

(f) minimise the number of vehicle access points onto public roads

(g) avoid the need for vehicles to reverse onto public roads

(h) where practical, provide the opportunity for shared use of car parking and integration of car parking areas with adjoining development to reduce the total extent of vehicle parking areas and the requirement for multiple access points

(i) not dominate the character and appearance of a site when viewed from public roads and spaces

(j) provide landscaping that will shade and enhance the appearance of the vehicle parking areas

(k) include infrastructure such as underground cabling and connections to power infrastructure that will enable the recharging of electric vehicles.

37 Vehicle parking areas should be designed to reduce opportunities for crime by:

(a) maximising the potential for passive surveillance by ensuring they can be overlooked from nearby buildings and roads

(b) incorporating walls and landscaping that do not obscure vehicles or provide potential hiding places

(c) being appropriately lit

(d) having clearly visible walkways.

38 Where parking areas are not obviously visible or navigated, signs indicating the location and availability of vehicle parking spaces associated with businesses should be displayed at locations readily visible to customers.

39 Vehicle parking areas that are likely to be used during non-daylight hours should provide floodlit entry and exit points and site lighting directed and shaded in a manner that will not cause nuisance to adjacent properties or users of the parking area.

40 Vehicle parking areas should be sealed or paved to minimise dust and mud nuisance.

41 To assist with stormwater detention and reduce heat loads in summer, outdoor vehicle parking areas should include landscaping.

42 Vehicle parking areas should be line-marked to delineate parking bays, movement aisles and direction of traffic flow.

43 On-site visitor parking spaces should be sited and designed to:

(a) not dominate internal site layout

(b) be clearly defined as visitor spaces not specifically associated with any particular dwelling

(c) be accessible to visitors at all times.

Vehicle Parking for Residential Development

44 On-site vehicle parking should be provided having regard to:

(a) the number, nature and size of proposed dwellings

(b) proximity to centre facilities, public and community transport within walking distance of the dwellings

(c) the anticipated mobility and transport requirements of the likely occupants, particularly groups such as aged persons.

45 Vehicle parking areas servicing more than one dwelling should be of a size and location to:

(a) serve users, including pedestrians, cyclists and motorists, efficiently, conveniently and safely

(b) provide adequate space for vehicles, including emergency service vehicles, to manoeuvre between the street and the parking area

(c) reinforce or contribute to attractive streetscapes.

Waste

OBJECTIVES

1 Development that, in order of priority, avoids the production of waste, minimises the production of waste, reuses waste, recycles waste for reuse, treats waste and disposes of waste in an environmentally sound manner.

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.

Table WeTo/6 - Off-street Vehicle Parking Requirements for Designated Areas

Interpretation

1 The vehicle parking rates table applies to Designated Areas listed below except where:

(a) any applicable condition(s) is/are not met

(b) the zone provisions require a lesser amount of on-site vehicular parking spaces than the amount determined using the vehicle parking rates table below.

Designated Areas

2 The following are Designated Areas:

Designated Area	Conditions
Urban Corridor Zone	None
District Centre Zone Local Centre Zone Neighbourhood Centre Zone	Any part of the development site is located in accordance with at least one of the following: (a) within 200 metres of any section of road reserve along which a bus service operates as a high frequency public transit service(2) (b) within 400 metres of a bus interchange(1) that is part of a high frequency public transit service(2) (c) within 400 metres of an O-Bahn interchange(1) (d) within 400 metres of a passenger rail station(1) that is part of a high frequency public transit service(2) (e) within 400 metres of a passenger tram station(1) (f) within 400 metres of the Adelaide Parklands.

(1) Measured from an area that contains any platform(s), shelter(s) or stop(s) where people congregate for the purpose waiting to board a bus, tram or train, but does not include areas used for the parking of vehicles

(2) A high frequency public transit service is a route serviced every 15 minutes between 7.30am and 6.30pm Monday to Friday and every 30 minutes at night, Saturday, Sunday and public holidays until 10pm.

Applicable off-street vehicular parking requirements

3 Development should provide off-street vehicle parking in accordance with the table(s) below. A lesser number of parking spaces may be provided based on the nature of development and parking condition 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

(b) the development is sited in a locality where the respective peak demands for parking for the range of uses (existing and proposed) occurs at different times and suitable arrangements are in place for the sharing of adjoining or nearby parking areas

(c) the development involves the retention and reuse of a place of heritage value, where the provision of on-site parking is constrained

(d) suitable arrangements are made for any parking shortfall to be met elsewhere or by other means (including a contribution to a car parking fund)

(e) 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 future loss of access, restrictions, road modifications or widening

(e) the site of the development is located within distances specified in the condition applicable to Designated Areas for at least two different public transit modes.

VEHICLE PARKING RATES TABLES

Table 1: Non-residential development excluding tourist accommodation

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
Boulevard Policy Area 34 within the **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
High Street Policy Area 35 within the **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

Table 2: Tourist accommodation

Location of development	Desired minimum number of required vehicle parking spaces	Maximum number of vehicle parking spaces
Urban Corridor Zone	1 space for every 4 bedrooms up to 100 bedrooms and 1 space for every 5 bedrooms over 100 bedrooms	1 space for every 2 bedrooms up to 100 bedrooms and 1 space for every 4 bedrooms over 100 bedrooms

Table 3: Residential development, in the form of residential flat buildings and residential development in multi-storey buildings

Location of development	Rate for each dwelling based on number of bedrooms per dwelling	Plus number of required visitor parking spaces
Boulevard Policy Area 34 within the **Urban Corridor Zone**	0.25 per studio (no separate bedroom) 0.75 per 1 bedroom dwelling 1 per 2 bedroom dwelling 1.25 per 3 + bedroom dwelling	0.25 per dwelling

Location of development	Rate for each dwelling based on number of bedrooms per dwelling	Plus number of required visitor parking spaces
High Street Policy Area 35 within the **Urban Corridor Zone**	0.25 per studio (no separate bedroom) 0.75 per 1 bedroom dwelling 1 per 2 bedroom dwelling 1.25 per 3 + bedroom dwelling	0.25 per dwelling
Transit Living Policy Area 36 within the **Urban Corridor Zone**	0.5 per studio (no separate bedroom) 1 per 1 bedroom dwelling 1.5 per 2 bedroom dwelling 2 per 3 + bedroom dwelling	0.25 per dwelling
Business Policy Area 37 within the **Urban Corridor Zone**	0.5 per studio (no separate bedroom) 1 per 1 bedroom dwelling 1.5 per 2 bedroom dwelling 2 per 3 + bedroom dwelling	0.25 per dwelling

Table 4: Row, semi-detached, group and detached dwellings

Location of development	Number of bedrooms, or rooms capable of being used as a bedroom	Number of required vehicle parking spaces
Urban Corridor Zone	1 or 2 bedrooms	1
	3 + bedrooms	2

Table WeTo/7 - Off-street Bicycle Parking Requirements for Urban Corridor Zone

The following bicycle parking requirements apply to development specifically in the **Urban Corridor Zone**.

1 In residential and mixed use development, the provision of bicycle parking may be reduced in number and shared where the operating hours of commercial activities complement the residential use of the site.

2 Residential and mixed use development, in the form of multi-storey buildings, should provide bicycle parking in accordance with the following rates:

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 4 dwellings	1 for every 10 dwellings

Form of development	Employee/resident (bicycle parking spaces)	Visitor/shopper (bicycle parking spaces)
Office	1 for every 200 square metres of gross leasable floor area	2 plus 1 per 1000 square metres of gross leasable floor 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