

# APPENDIX A5:

# ADG COMPLIANCE

ADG Ref.	Item Description	Notes	Compliance
<b>PART3</b>	<b>SITING THE DEVELOPMENT</b>		
<b>3A</b>	<b>SITE ANALYSIS</b>		
3A-1 p47	Objective: Site Analysis illustrates that design decisions have been based on opportunities & constraints of the site conditions & their relationship to the surrounding context.		✓
	<b>DESIGN GUIDANCE</b>		<b>CONSIDERED</b>
	Each element in the Site Analysis Checklist is addressed.	-	YES
<b>3B</b>	<b>ORIENTATION</b>		
3B-1 p49	Objective: Building types & layouts respond to the streetscape & site while optimising solar access within the development		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Buildings along the street frontage define the street by facing it & incorporating direct access from the street	-	YES
	Where the street frontage is to the east or west, rear buildings are orientated to the north	-	N/A
	Where the street frontage is to the north or south, overshadowing to the south is minimised & buildings behind the street frontage are orientated east & west	-	N/A
3B-2 p49	Objective: Overshadowing of neighbouring properties is minimised during mid winter.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Living areas, private open space & communal open space receive solar access in accordance with section 3D Communal & Public Open Space and section 4A Solar & Daylight Access	Capable of complying.	YES
	Solar access to living rooms, balconies & private open spaces of neighbours are considered	Refer to appended Solar access assessment	YES
	Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%	Refer to appended Solar access assessment	N/A
	If the proposal will reduce the solar access of neighbours, building separation is increased beyond minimums contained in 3F Visual Privacy	Refer to appended Solar access assessment	N/A
	Overshadowing is minimised to the south or downhill by increased upper level setbacks	Refer to appended Solar access assessment	YES
	Buildings are orientated at 90 deg to the boundary with neighbourings to minimise overshadowing & privacy impacts, particularly where minimum setbacks are used & buildings are higher than the adjoining development	-	N/A
	A minimum of 4 hours of solar access is retained to solar collectors on neighbouring buildings	Refer to appended Solar access assessment	YES
<b>3C</b>	<b>PUBLIC DOMAIN INTERFACE</b>		
3C-1 p51	Objective: Transition between private & public domain is achieved without compromising safety & security.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Terraces, balconies and courtyard apartments have direct street entry, where appropriate	-	YES
	Changes in level between private terraces, front gardens & dwelling entries above the street level provide surveillance & improve visual privacy for ground level dwellings	Capable of complying.	YES

ADG Ref.	Item Description	Notes	Compliance
	Upper level balconies & windows overlook the public domain	Capable of complying.	YES
	Front fences & walls along street frontages use visually permeable materials & treatments. Height of solid fences or walls is limited to 1m	Capable of complying.	YES
	Length of solid walls is limited along street frontages	Capable of complying.	YES
	Opportunities for casual interaction between residents & the public domain is provided for. Design solutions may include seating at building entries, near letter boxes & in private courtyards adjacent to streets	Capable of complying.	YES
	In developments with multiple buildings and/or entries, pedestrian entries & spaces associated with individual buildings/entries are differentiated to improve legibility for residents, using the following design solutions: Architectural detailing; Changes in materials; Plant Species; Colours; Opportunities for people to be concealed are minimised	Capable of complying.	YES
3C-2 p53	Objective: Amenity of the public domain is retained & enhanced.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Planting is used to soften the edges of any raised terraces to the street, for example above sub-basement car parking	Capable of complying.	YES
	Mail boxes are located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided	Capable of complying.	YES
	The visual prominence of underground car park vents is minimised & located at a low level where possible	Capable of complying.	YES
	Substations, pump rooms, garbage storage areas & other service requirements are located in basement car parks or out of view	Capable of complying.	YES
	Ramping for accessibility is minimised by building entry location & setting ground floor levels in relation to footpath levels	Capable of complying.	YES
	Durable, graffiti resistant & easily cleanable materials are used	Capable of complying.	YES
	Where development adjoins public parks, open space or bushland, the design positively addresses this interface & uses the following design solutions: Street access, pedestrian paths & building entries are clearly defined; Paths, low fences & planting are clearly delineate between communal/private open space & the adjoining public open space; Minimal use of blank walls, fences & ground level parking	Capable of complying.	YES
	On sloping sites protrusion of car parking above ground level is minimised by using split levels to step underground car parking	Capable of complying.	YES
<b>3D</b>	<b>COMMUNAL &amp; PUBLIC OPEN SPACE</b>		
3D-1 p55	Objective: An adequate area of communal open space is provided to enhance residential amenity & to provide opportunities for landscaping.		✓
	<b>Design Criteria</b>		
1	Communal open space has a minimum area equal to 25% of the site	Communal open space is to be assessed lot by lot during stage 2 DAs. The IDS proposes ground and rooftop communal open space greater than 25% of the overall site area.	YES ✓
2	Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter)	Capable of complying.	✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Communal open space is consolidated into a well designed & usable area	Capable of complying.	YES
	Communal open space have a minimum dimension of 3m. Larger developments should consider greater dimensions	Capable of complying.	YES
	Communal open space are co-located with deep soil areas	Capable of complying.	YES
	Direct, equitable access are provided to communal open space areas from common circulation areas, entries & lobbies	Capable of complying.	YES
	Where communal open space cannot be provided at ground level, it is provided on a podium or roof	Capable of complying.	YES
	Where developments are unable to achieve the design criteria, such as on small lots, sites within business zones, or in a dense urban area, they need to Provide alternative options for residents	Capable of complying.	YES

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ADG Ref.	Item Description	Notes	Compliance												
3D-2 p57	Objective: Communal open space is designed to allow for a range of activities, respond to site conditions & be attractive and inviting		✓												
	Design Guidance		CONSIDERED												
	Facilities are provided within communal open spaces & common spaces for a range of age groups (see 4F Common Circulation & Spaces), incorporating the following: Seating for individuals or groups; Barbeque areas; Play equipment or play areas; Swimming pools, gyms, tennis courts or common rooms	Capable of complying.	YES												
	Location of facilities responds to microclimate & site conditions with access to sun in winter, shade in summer & shelter from strong winds & down drafts	Capable of complying.	YES												
	Visual impacts of services are minimised, including location of ventilation duct outlets from basement car parks, electrical substations & detention tanks	Capable of complying.	YES												
3D-3 p57	Objective: Communal open space is designed to maximise safety.		✓												
	Design Guidance		CONSIDERED												
	Communal open space & public domain should be readily visible from habitable rooms & private open space areas while maintaining visual privacy. Design solutions include: Bay windows; Corner windows; Balconies	Capable of complying.	YES												
	Communal open space is well lit	Capable of complying.	YES												
	Communal open space/facilities that are provided for children & young people are safe and contained	Capable of complying.	YES												
3D-4 p59	Objective: Public open space, where provided, responds to the existing pattern & uses of the neighbourhood.		✓												
	Design Guidance		CONSIDERED												
	Public open space is well connected with public streets along at least one edge		YES												
	POS is connected with nearby parks & other landscape elements		YES												
	POS is linked through view lines, pedestrian desire paths, termination points & the wider street grid		YES												
	Solar access is provided year round along with protection from strong winds		YES												
	Opportunities for a range of recreational activities is provided for all ages		YES												
	Positive street address & active street frontages are provided adjacent to POS		YES												
	Boundaries are clearly defined between POS & private areas		YES												
3E	DEEP SOIL ZONES														
3E-1 p61	Objective: Deep soil zones are suitable for healthy plant & tree growth, improve residential amenity and promote management of water and air quality.		✓												
	Design Criteria														
1	Deep soil zones are to meet the following minimum requirements:	Consistent with the DCP and DPIE recommendation, greater than 15% of the masterplan site area is provided as deep soil with a minimum dimension >6m, and greater than 30% of the masterplan site area is provided as deep soil with a minimum dimension of 4m.	✓												
	<table><tr><th>Site Area (sqm)</th><th>Minimum Dim (m)</th><th>Deep Soil Zone (% of site area)</th></tr><tr><td>less than 650</td><td>-</td><td>7</td></tr><tr><td>650-1500</td><td>3</td><td></td></tr><tr><td>greater than 1500</td><td>6</td><td></td></tr></table>	Site Area (sqm)	Minimum Dim (m)	Deep Soil Zone (% of site area)	less than 650	-	7	650-1500	3		greater than 1500	6			
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less than 650	-	7													
650-1500	3														
greater than 1500	6														
	Design Guidance		CONSIDERED												
	On some sites it may be possible to provide larger deep soil zones, depending on the site area & context: 10% of the site as deep soil on sites with an area of 650sqm - 1,500sqm; 15% of the site as deep soil on sites greater than 1,500sqm		YES												
	Deep soil zones are located to retain existing significant trees & to allow for the development of healthy root systems, providing anchorage & stability for mature trees. Design solutions may include: Basement & sub-basement car park design that is consolidated beneath building footprints; Use of increased front & side setbacks; Adequate clearance around trees to ensure long term health; Co-location with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil		YES												

ADG Ref.	Item Description	Notes	Compliance												
	Achieving the design criteria may not be possible on some sites including where: location & building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres); there is 100% site coverage or non-residential uses at ground floor level.		N/A												
3F	VISUAL PRIVACY														
3F-1 p63	Objective: Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external & internal visual privacy.		✓												
	Design Criteria														
1	Separation between windows & balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side & rear boundaries are as follows:	Indicative reference design demonstrates scheme is capable of complying.	YES ✓												
	<table><tr><th>Building Height (m)</th><th>Habitable Rooms &amp; Balconies. (m)</th><th>Non-Habitable Rooms (m)</th></tr><tr><td>up to 12 (4 storeys)</td><td>6</td><td>3</td></tr><tr><td>up to 25 (5-8 storeys)</td><td>9</td><td>4.5</td></tr><tr><td>over 25 (9+ storeys)</td><td>12</td><td>6</td></tr></table>	Building Height (m)	Habitable Rooms & Balconies. (m)	Non-Habitable Rooms (m)	up to 12 (4 storeys)	6	3	up to 25 (5-8 storeys)	9	4.5	over 25 (9+ storeys)	12	6		
Building Height (m)	Habitable Rooms & Balconies. (m)	Non-Habitable Rooms (m)													
up to 12 (4 storeys)	6	3													
up to 25 (5-8 storeys)	9	4.5													
over 25 (9+ storeys)	12	6													
	Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room. Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties.														
	Design Guidance		CONSIDERED												
	Generally as the height increases, one step in the built form is desirable due to building separations. Any additional steps do not cause a 'ziggurat' appearance	-	N/A												
	For residential buildings next to commercial buildings, separation distances are measured as follows: Retail, office spaces & commercial balconies use the habitable room distances; Service & plant areas use the non-habitable room distances	-	N/A												
	New development are located & oriented to maximise visual privacy between buildings on site & for neighbouring buildings. Design solutions include: site layout & building are orientated to minimise privacy impacts (see 3B Orientation); on sloping sites, apartments on different levels have appropriate visual separation distances (see pg 63 figure 3F.4)	Capable of complying.	YES												
	Apartment buildings have an increased separation distance of 3m (in addition to 3F-1 Design Criteria) when adjacent to a different zone that permits lower density residential development, to provide for a transition in scale & increased landscaping (pg 63 figure 3F.5)	-	N/A												
	Direct lines of sight are avoided for windows & balconies across corners	Capable of complying.	YES												
	No separation is required between blank walls	Adopted in 4 locations in the northern precinct	YES												
3F-2 p65	Objective: Site & building design elements increase privacy without compromising access to light & air and balance outlook & views from habitable rooms & private open space.		✓												
	Design Guidance		CONSIDERED												
	Communal open space, common areas & access paths are separated from private open space & windows to apartments, particularly habitable room windows. Design solutions include: setbacks; solid or partially solid balustrades on balconies at lower levels; fencing and/or trees and vegetation to separate spaces; screening devices; bay windows or pop out windows to provide privacy in one direction & outlook in another; raising apartments or private open space above the public domain or communal open space; planter boxes incorporated into walls & balustrades to increase visual separation; pergolas or shading devices to limit overlooking of lower apartments or private open space; on constrained sites where it can be demonstrated that building layout opportunities are limited, fixed louvres or screen panels on windows and/or balconies	Capable of complying.	YES												
	Bedrooms, living spaces & other habitable rooms are separated from gallery access & other open circulation space by the apartment's service areas	Capable of complying.	YES												

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ADG Ref.	Item Description	Notes	Compliance
	Balconies & private terraces are located in front of living rooms to increase internal privacy	Capable of complying.	YES
	Windows are offset from the windows of adjacent buildings	Capable of complying.	YES
	Recessed balconies and/or vertical fins are used between adjacent balconies	Capable of complying.	YES
<b>3G</b>	<b>PEDESTRIAN ACCESS &amp; ENTRIES</b>		
<b>3G-1 p67</b>	Objective: Building entries & pedestrian access connects to and addresses the public domain.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Multiple entries (including communal building entries & individual ground floor entries) activate the street edge	Capable of complying.	YES
	Entry locations relate to the street & subdivision pattern, and the existing pedestrian network	Capable of complying.	YES
	Building entries are clearly identifiable. Communal entries are clearly distinguishable from private entries	Capable of complying.	YES
	Where street frontage is limited, a primary street address should be provided with clear sight lines and pathways to secondary building entries	Capable of complying.	YES
<b>3G-2 p67</b>	Objective: Access, entries & pathways are accessible & easy to identify.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Building access areas including lift lobbies, stairwells & hallways are clearly visible from the public domain & communal spaces	Capable of complying.	YES
	The design of ground floors & underground car parks minimise level changes along pathways & entries	Capable of complying.	YES
	Steps & ramps are integrated into the overall building & landscape design	Capable of complying.	YES
	For large developments 'way finding' maps are provided to assist visitors & residents	Capable of complying.	YES
	For large developments electronic access & audio/video intercom are provided to manage access	Capable of complying.	YES
<b>3G-3 p67</b>	Objective: Large sites provide pedestrian links for access to streets & connection to destinations.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Pedestrian links through sites facilitate direct connections to open space, main streets, centres & public transport	Proposed in several locations.	YES
	Pedestrian links are direct, have clear sight lines, are overlooked by habitable rooms or private open spaces of dwellings, are well lit & contain active uses, where appropriate	Capable of complying.	YES
<b>3H</b>	<b>VEHICLE ACCESS</b>		
<b>3H-1 p69</b>	Objective: Vehicle access points are designed & located to achieve safety, minimise conflicts between pedestrians & vehicles and create high quality streetscapes.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Car park access is integrated with the building's overall facade. Design solutions include: materials & colour palette minimise visibility from street; security doors/gates minimise voids in the facade; where doors are not provided, visible interiors reflect facade design, and building services, pipes & ducts are concealed	Capable of complying.	YES
	Car park entries are located behind the building line	Capable of complying.	YES
	Vehicle entries are located at the lowest point of the site, minimising ramp lengths, excavation & impacts on the building form and layout	Capable of complying.	YES
	Car park entry & access are located on secondary streets or lanes where available	Complies except where tree retention is given priority	NO
	Vehicle standing areas that increase driveway width & encroach into setbacks are avoided	Capable of complying.	YES
	Access point is located to avoid headlight glare to habitable rooms	Capable of complying.	YES
	Adequate separation distances are provided between vehicle entries & street intersections	Capable of complying.	YES
	The width & number of vehicle access points are limited to the minimum	Capable of complying.	YES

ADG Ref.	Item Description	Notes	Compliance
	Visual impact of long driveways is minimised through changing alignments & screen planting	Capable of complying.	YES
	The need for large vehicles to enter or turn around within the site is avoided	In the core, most buildings will be serviced from below ground loading areas	NO
	Garbage collection, loading & servicing areas are screened	Capable of complying.	YES
	Clear sight lines are provided at pedestrian & vehicle crossings	Capable of complying.	YES
	Traffic calming devices, such as changes in paving material or textures, are used where appropriate	Capable of complying.	YES
	Pedestrian & vehicle access are separated & distinguishable. Design solutions include: Changes in surface materials; Level changes; Landscaping for separation	Capable of complying.	YES
<b>3J</b>	<b>BICYCLE &amp; CAR PARKING</b>		
<b>3J-1 p71</b>	Objective: Car parking is provided based on proximity to public transport in metropolitan Sydney & centres in regional areas.		✓
	<b>Design Criteria</b>		
1	For development in the following locations: on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre the minimum car parking requirement for residents & visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less.	Parking is provided in accordance with DCP rates.	✓
	The car parking needs for a development must be provided off street.		
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Where a car share scheme operates locally, car share parking spaces are provided within the development.		YES
	Where less car parking is provided in a development, council do not provide on street resident parking permits		N/A
<b>3J-2 p71</b>	Objective: Parking & facilities are provided for other modes of transport.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Conveniently located & sufficient numbers of parking spaces are provided for motorbikes & scooters	Capable of complying.	YES
	Secure undercover bicycle parking is provided & easily accessible from both public domain & common areas	Capable of complying.	YES
	Conveniently located charging stations are provided for electric vehicles, where desirable	Capable of complying.	YES
<b>3J-3 p73</b>	Objective: Car park design & access is safe and secure.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Supporting facilities within car parks, including garbage, plant & switch rooms, storage areas & car wash bays can be accessed without crossing car parking spaces	Capable of complying.	YES
	Direct, clearly visible & well lit access is provided into common circulation areas	Capable of complying.	YES
	Clearly defined & visible lobby or waiting area is provided to lifts & stairs	Capable of complying.	YES
	For larger car parks, safe pedestrian access is clearly defined & circulation areas have good lighting, colour, line marking and/or bollards	Capable of complying.	YES
<b>3J-4 p73</b>	Objective: Visual & environmental impacts of underground car parking are minimised.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Excavation minimised through efficient car park layouts & ramp design	Capable of complying.	YES
	Car parking layout is well organised, using a logical, efficient structural grid & double loaded aisles	Capable of complying.	YES
	Protrusion of car parks do not exceed 1m above ground level. Solution include stepping car park levels or using split levels on sloping sites		N/A
	Natural ventilation is provided to basement & sub-basement car parking		NO



## Appendix A5

ADG Ref.	Item Description	Notes	Compliance
	Ventilation grills or screening devices for car parking openings are integrated into the facade & landscape design		N/A
3J-5 p75	Objective: Visual & environmental impacts of on-grade car parking are minimised.		N/A
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3J-6 p75	Objective: Visual & environmental impacts of above ground enclosed car parking are minimised.		N/A
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<b>PART4</b>	<b>DESIGNING THE BUILDING</b>		
<b>4A</b>	<b>SOLAR &amp; DAYLIGHT ACCESS</b>		
4A-1 p79	Objective: To optimise number of apartments receiving sunlight to habitable rooms, primary windows & private open space.		✓
	<b>DESIGN CRITERIA</b>		
1	Living rooms & private open spaces of at least 70% of apartments in a building receive a minimum of 2 hrs direct sunlight between 9am - 3pm at mid winter in Sydney Metropolitan Area and in Newcastle and Wollongong local government areas	Indicative design demonstrates scheme is capable of complying.	YES ✓
2	In all other areas, living rooms & private open spaces of at least 70% of apartments in a building receive a minimum of 3 hrs direct sunlight between 9 am - 3 pm at mid winter		N/A
3	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am - 3 pm at mid winter	Indicative design demonstrates scheme is capable of complying.	YES ✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	The design maximises north aspect. The number of single aspect south facing apartments is minimised	-	YES
	Single aspect, single storey apartments have a northerly or easterly aspect	Indicative design includes apartments oriented south and west	NO
	Living areas are located to the north and service areas to the south & west of apartments	-	N/A
	To optimise direct sunlight to habitable rooms & balconies a number of the following design features are used: Dual aspect apartments, Shallow apartment layouts, Two storey & mezzanine level apartments, Bay windows	Indicative reference design demonstrates scheme is capable of complying.	YES
	To maximise the benefit to residents of direct sunlight within living rooms & private open spaces, a minimum of 1sqm of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes	Capable of complying.	YES
	Achieving the design criteria may not be possible where: greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source; on south facing sloping sites; significant views are oriented away from the desired aspect for direct sunlight Design drawings need to demonstrate how site constraints & orientation preclude meeting Design Criteria & how the development meets the objective.	-	N/A
4A-2 p81	Objective: Daylight access is maximised where sunlight is limited.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Courtyards, skylights & high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms	-	N/A
	Where courtyards are used: Use is restricted to kitchens, bathrooms & service areas; Services are concealed with appropriate detailing & materials to visible walls; Courtyards are fully open to the sky; Access is provided to the light well from communal area for cleaning & maintenance; Acoustic privacy, fire safety & minimum privacy separation distances (see 3F Visual Privacy) are achieved	-	N/A
	Opportunities for reflected light into apartments are optimised through: Reflective exterior surfaces on buildings opposite south facing windows; Positioning windows to face other buildings or surfaces (on neighbouring sites or within site) that will reflect light; Integrating light shelves into the design; Light coloured internal finishes	Capable of complying.	YES
4A-3 p81	Objective: Design incorporates shading & glare control, particularly for warmer months.		✓

ADG Ref.	Item Description	Notes	Compliance
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	A number of the following design features are used: Balconies or sun shading that extend far enough to shade summer sun, but allow winter sun to penetrate living areas; Shading devices such as eaves, awnings, balconies, pergolas, external louvres & planting; Horizontal shading to north facing windows; Vertical shading to east & particularly west facing windows; Operable shading to allow adjustment & choice; High performance glass that minimises external glare off windows, with consideration given to reduce tint glass or glass with a reflectance level below 20% (reflective films are avoided)	Capable of complying.	YES
<b>4B</b>	<b>NATURAL VENTILATION</b>		
<b>4B-1 p83</b>	Objective: All habitable rooms are naturally ventilated.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	The building's orientation maximises capture & use of prevailing breezes for natural ventilation in habitable rooms	Capable of complying.	YES
	Depths of habitable rooms support natural ventilation	Capable of complying.	YES
	The area of unobstructed window openings should be equal to at least 5% of the floor area served	Capable of complying.	YES
	Light wells are not the primary air source for habitable rooms	Capable of complying.	YES
	Doors & openable windows maximise natural ventilation opportunities by using the following design solutions: Adjustable windows with large effective openable areas; Variety of window types that provide safety & flexibility such as awnings & louvres; Windows that occupants can reconfigure to funnel breezes into apartment, such as vertical louvres, casement windows & externally opening doors	Capable of complying.	YES
<b>4B-2 p83</b>	Objective: The layout & design of single aspect apartments maximises natural ventilation.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Apartment depths limited to maximise ventilation & airflow	Capable of complying.	YES
	Natural ventilation to single aspect apartments is achieved with the following design solutions: Primary windows are augmented with plenums and light wells (generally not suitable for cross ventilation); Stack effect ventilation, solar chimneys or similar used to naturally ventilate internal building areas or rooms such as bathrooms & laundries; Courtyards or building indentations have a width to depth ratio of 2:1 or 3:1 to ensure effective air circulation & avoid trapped smells	Capable of complying.	YES
<b>4B-3 p85</b>	Objective: Number of apartments with natural cross vent is maximised to create comfortable indoor environments for residents.		✓
	<b>Design Criteria</b>		
1	At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	Indicative reference design demonstrates scheme is capable of complying.	YES ✓
2	Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line	Capable of complying.	YES ✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	The building includes dual aspect apartments, cross through apartments & corner apartments, and limited apartment depths	Capable of complying.	YES
	In cross-through apartments, external window & door opening sizes/areas on one side of an apartment (inlet side) are approximately equal to the external window & door opening sizes/areas on the other side of the apartment (outlet side)	Capable of complying.	YES
	Apartments are designed to minimise the number of corners, doors & rooms that might obstruct airflow	Capable of complying.	YES
	Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation & airflow	Capable of complying.	YES



## Appendix A5

ADG Ref.	Item Description	Notes	Compliance												
4C	CEILING HEIGHTS														
4C-1 p87	Objective: Ceiling height achieves sufficient natural ventilation & daylight access.		✓												
	Design Criteria														
1	Measured from finished floor level to finished ceiling level, minimum ceiling heights are: <table><tr><th colspan="2">Minimum Ceiling Height for apt and mixed-used buildings (m)</th></tr><tr><td>Habitable rooms</td><td>2.7</td></tr><tr><td>Non-habitable rooms</td><td>2.4</td></tr><tr><td>For 2 storey apts</td><td>2.7 for main living area floor 2.4 for second floor, where its area does not exceed 50% of the apt area</td></tr><tr><td>Attic spaces</td><td>1.8 at edge of room with 30deg minimum ceiling slope</td></tr><tr><td>If located in mixed-used areas</td><td>3.3 for ground and first floor to promote future flexibility of use</td></tr></table> These minimums do not preclude higher ceilings if desired	Minimum Ceiling Height for apt and mixed-used buildings (m)		Habitable rooms	2.7	Non-habitable rooms	2.4	For 2 storey apts	2.7 for main living area floor 2.4 for second floor, where its area does not exceed 50% of the apt area	Attic spaces	1.8 at edge of room with 30deg minimum ceiling slope	If located in mixed-used areas	3.3 for ground and first floor to promote future flexibility of use	Capable of complying. Proposed floor to floor heights of 3150mm ensure code compliance	YES ✓
Minimum Ceiling Height for apt and mixed-used buildings (m)															
Habitable rooms	2.7														
Non-habitable rooms	2.4														
For 2 storey apts	2.7 for main living area floor 2.4 for second floor, where its area does not exceed 50% of the apt area														
Attic spaces	1.8 at edge of room with 30deg minimum ceiling slope														
If located in mixed-used areas	3.3 for ground and first floor to promote future flexibility of use														
	Design Guidance		CONSIDERED												
	Ceiling height accommodates use of ceiling fans for cooling & heat distribution	Capable of complying.	YES												
4C-2 p87	Objective: Ceiling height increases the sense of space in apartments & provides for well proportioned rooms.		✓												
	Design Guidance		CONSIDERED												
	A number of the following design solutions are used: Hierarchy of rooms in apartment is defined using changes in ceiling heights & alternatives such as raked or curved ceilings, or double height spaces; Well proportioned rooms are provided, for example, smaller rooms feel larger & more spacious with higher ceilings; Ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude. The stacking of service rooms from floor to floor & coordination of bulkhead location above non-habitable areas, such as robes or storage, can assist	Capable of complying.	YES												
4C-3 p87	Objective: Ceiling heights contribute to the flexibility of building use over the life of the building.														
	Design Guidance		CONSIDERED												
	Ceiling heights of lower level apartments should be greater than the minimum required by Design Criteria allowing flexibility & conversion to non-residential uses		NO												
4D	APARTMENT SIZE & LAYOUT														
4D-1 p89	Objective: The layout of rooms within apartment is functional, well organised & provides a high standard of amenity.														
	Design Criteria														
1	Apartments have the following minimum internal areas: <table><tr><th>Apartment Type</th><th>Minimum Internal Area (sqm)</th></tr><tr><td>Studio</td><td>35</td></tr><tr><td>1 Bedroom</td><td>50</td></tr><tr><td>2 Bedroom</td><td>70</td></tr><tr><td>3 Bedroom</td><td>90</td></tr></table> The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5sqm each. A fourth bedroom & further additional bedrooms increase the minimum internal area by 12sqm each	Apartment Type	Minimum Internal Area (sqm)	Studio	35	1 Bedroom	50	2 Bedroom	70	3 Bedroom	90	Capable of complying.	YES ✓		
Apartment Type	Minimum Internal Area (sqm)														
Studio	35														
1 Bedroom	50														
2 Bedroom	70														
3 Bedroom	90														
2	Every habitable room has a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight & air is not borrowed from other rooms	Capable of complying.	YES ✓												

ADG Ref.	Item Description	Notes	Compliance
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Kitchens is not located as part of the main circulation space in larger apartments (such as hallway or entry space)	Capable of complying.	YES
	A window is visible from any point in a habitable room	Capable of complying.	YES
	Where minimum areas or room dimensions are not met, apartments demonstrate that they are well designed and demonstrate the usability & functionality of the space with realistically scaled furniture layouts & circulation areas.		N/A
4D-2 p89	Objective: Environmental performance of the apartment is maximised.		✓
	<b>Design Criteria</b>		
1	Habitable room depths are limited to a maximum of 2.5 x the ceiling height	Capable of complying.	YES ✓
2	In open plan layouts (living, dining & kitchen are combined) maximum habitable room depth is 8m from a window	Capable of complying.	YES ✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Greater than minimum ceiling heights allow for proportional increases in room depth up to the permitted max depths		N/A
	All living areas & bedrooms are located on the external face of building	Capable of complying.	YES
	Where possible: bathrooms & laundries have external openable window; main living spaces are oriented toward the primary outlook & aspect and away from noise sources	Capable of complying.	YES
4D-3 p91	Objective: Apartment layouts are designed to accommodate a variety of household activities & needs.		✓
	<b>Design Criteria</b>		
1	Master bedrooms have a minimum area of 10sqm & other bedrooms 9sqm (excluding wardrobe space)	Capable of complying.	YES ✓
2	Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	Capable of complying.	YES ✓
3	Living rooms or combined living/dining rooms have a minimum width of: – 3.6m for studio & 1 bedroom apartments – 4m for 2 & 3 bedroom apartments	Capable of complying.	YES ✓
4	The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	Capable of complying.	YES ✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Access to bedrooms, bathrooms & laundries is separated from living areas minimising direct openings between living & service areas	Capable of complying.	YES
	All bedrooms allow a minimum length of 1.5m for robes	Capable of complying.	YES
	Main bedroom of apartment or studio apartment is provided with a wardrobe of minimum 1.8m L x 0.6m D x 2.1m H	Capable of complying.	YES
	Apartment layouts allow flexibility over time, design solutions include: Dimensions that facilitate a variety of furniture arrangements & removal; Spaces for a range of activities & privacy levels between different spaces within the apartment; Dual master apartments; Dual key apartments (Note: dual key apartments which are separate but on the same title are regarded as two sole occupancy units for the purposes of the BCA & for calculating mix of apartments); Room sizes & proportions or open plans (rectangular spaces 2:3 are more easily furnished than square spaces 1:1); Efficient planning of circulation by stairs, corridors & through rooms to maximise the amount of usable floor space in rooms	Capable of complying.	YES

## Appendix A5

ADG Ref.	Item Description	Notes	Compliance															
40E	PRIVATE OPEN SPACE & BALCONIES																	
4E-1 p93	Objective: Apartments provide appropriately sized private open space & balconies to enhance residential amenity.		✓															
	Design Criteria																	
1	All apartments are required to have primary balconies as follows:	Capable of complying.	YES ✓															
	<table><tr><th>Apartment Type</th><th>Minimum Area (sqm)</th><th>Minimum Depth (m)</th></tr><tr><td>Studio</td><td>4</td><td>-</td></tr><tr><td>1 Bedroom</td><td>8</td><td>2</td></tr><tr><td>2 Bedroom</td><td>10</td><td>2</td></tr><tr><td>3+ Bedroom</td><td>12</td><td>2.4</td></tr></table>	Apartment Type	Minimum Area (sqm)	Minimum Depth (m)	Studio	4	-	1 Bedroom	8	2	2 Bedroom	10	2	3+ Bedroom	12	2.4		
Apartment Type	Minimum Area (sqm)	Minimum Depth (m)																
Studio	4	-																
1 Bedroom	8	2																
2 Bedroom	10	2																
3+ Bedroom	12	2.4																
	The minimum balcony depth to be counted as contributing to the balcony area is 1m																	
2	For apartments at ground level or on podium or similar, a private open space is provided instead of a balcony. It must have minimum area of 15sqm & minimum depth of 3m	Capable of complying.	YES ✓															
	Design Guidance																	
	Increased communal open space are provided where the number or size of balconies are reduced		CONSIDERED N/A															
	Storage areas on balconies is additional to the minimum balcony size	Capable of complying.	YES															
	Balcony use may be limited in some proposals where:consistently high wind speeds at 10 storeys & above; close proximity to road, rail or other noise sources; exposure to significant levels of aircraft noise; heritage & adaptive reuse of existing buildings	Capable of complying.	YES															
	In these situations juliet balconies, operable walls, enclosed wintergardens, and bay windows are appropriate. Other amenity benefits for occupants are provided in the apartments or in the development or both. Natural ventilation is also demonstrated																	
4E-2 p93	Objective: Primary private open space & balconies are appropriately located to enhance liveability for residents		✓															
	Design Guidance																	
	Primary open space & balconies are located adjacent to the living room, dining room or kitchen to extend the living space	Capable of complying.	YES															
	POS & balconies predominantly face north, east or west	Capable of complying.	YES															
	POS & balconies are orientated with the longer side facing outwards or be open to the sky to optimise daylight access into adjacent rooms	Capable of complying.	YES															
4E-3 p95	Objective: Private open space & balcony design is integrated into & contributes to the overall architectural form & detail of the building		✓															
	Design Guidance																	
	Solid, partially solid or transparent fences & balustrades are selected to respond to the location. They are designed to allow views & passive surveillance of the street while maintaining visual privacy & allowing for a range of uses on the balcony. Solid & partially solid balustrades are preferred	Capable of complying.	YES															
	Full width full height glass balustrades alone are generally not desirable	Capable of complying.	YES															
	Projecting balconies are integrated into the building design. The design of soffits are considered	Capable of complying.	YES															
	Operable screens, shutters, hoods & pergolas control sunlight & wind	Capable of complying.	YES															
	Balustrades are set back from the building or balcony edge where overlooking or where safety is an issue	Capable of complying.	YES															
	Downpipes & balcony drainage are integrated with the overall facade & building design	Capable of complying.	YES															
	Air-conditioning units are located on roofs, in basements, or fully integrated into the building design	Capable of complying.	YES															
	Where clothes drying, storage or air conditioning units are located on balconies, they are screened & integrated in the building design	Capable of complying.	YES															
	Ceilings of apartments below terraces are insulated to avoid heat loss	Capable of complying.	YES															
	Water & gas outlets are provided for primary balconies & private open space	Capable of complying.	YES															

ADG Ref.	Item Description	Notes	Compliance
4E-4 p95	Objective: Private open space & balcony design maximises safety		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Changes in ground levels or landscaping are minimised	Capable of complying.	YES
	Balcony design & detailing avoids opportunities for climbing & falling	Capable of complying.	YES
4F	<b>COMMON CIRCULATION &amp; SPACES</b>		
4F-1 p97	Objective: Common circulation spaces achieve good amenity & properly service the number of apartments		✓
	<b>Design Criteria</b>		
1	The maximum number of apartments off a circulation core on a single level is eight	On high rise levels some buildings provide up to 12 apartments per circulation core.	NO
2	For buildings of 10 storeys & over, the maximum number of apartments sharing a single lift is 40	Capable of complying.	YES ✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Greater than minimum requirements for corridor widths and/or ceiling heights allow comfortable movement & access particularly in entry lobbies, outside lifts & at apartment entry doors	Capable of complying.	YES
	Daylight & natural ventilation are provided to all common circulation spaces that are above ground	Capable of complying.	YES
	Windows are provided in common circulation spaces & are adjacent to the stair or lift core or at the ends of corridors	Capable of complying.	YES
	Longer corridors greater than 12m in length from the lift core are articulated. Design solutions include: Series of foyer areas with windows & spaces for seating; Wider areas at apartment entry doors & varied ceiling heights	Capable of complying.	YES
	Common circulation spaces maximise opportunities for dual aspect apartments, including multiple core apartment buildings & cross over apartments	Capable of complying.	YES
	Achieving Design Criteria for the number of apartments off a circulation core may not be possible. Where development is unable to achieve this, a high level of amenity for common lobbies, corridors & apartments is demonstrated, including: Sunlight & natural cross ventilation in apartments; Access to ample daylight & natural ventilation in common circulation spaces; Common areas for seating & gathering; Generous corridors with greater than minimum ceiling heights; Other innovative design solutions that provide high levels of amenity	Capable of complying. The indicative reference scheme shows that multiple sources of daylight, natural ventilation, and amenity through views out can be achieved in floorplates with up to 12 apartments per floor.	YES
	Where Design Criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level	Capable of complying.	YES
	Primary living room or bedroom windows do not open directly onto common circulation spaces, open or enclosed. Visual & acoustic privacy from common circulation spaces to any other rooms are carefully controlled	Capable of complying.	YES
4F-2 p99	Objective: Common circulation spaces promote safety & provide for social interaction between residents		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Direct & legible access are provided between vertical circulation points & apartment entries by minimising corridor or gallery length to give short, straight, clear sight lines	Capable of complying.	YES
	Tight corners & spaces are avoided	Capable of complying.	YES
	Circulation spaces are well lit at night	Capable of complying.	YES
	Legible signage are provided for apartment numbers, common areas & general wayfinding	Capable of complying.	YES
	Incidental spaces, eg space for seating in a corridor, at a stair landing, or near a window are provided	Capable of complying.	YES
	In larger developments, community rooms for activities such as owners corporation meetings or resident use, are provided & are co-located with communal open space	Capable of complying.	YES
	Where external galleries are provided, they are more open than closed above the balustrade along their length	Capable of complying.	YES

## Appendix A5

ADG Ref.	Item Description	Notes	Compliance										
4G	STORAGE												
4G-1 p101	Objective: Adequate, well designed storage is provided in each apartment		✓										
	Design Criteria												
1	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:	Capable of complying.	YES ✓										
	<table><tr><th>Apartment Type</th><th>Storage Size Volume (cubic m)</th></tr><tr><td>Studio</td><td>4</td></tr><tr><td>1 Bedroom</td><td>6</td></tr><tr><td>2 Bedroom</td><td>8</td></tr><tr><td>3+ Bedroom</td><td>10</td></tr></table>	Apartment Type	Storage Size Volume (cubic m)	Studio	4	1 Bedroom	6	2 Bedroom	8	3+ Bedroom	10		
Apartment Type	Storage Size Volume (cubic m)												
Studio	4												
1 Bedroom	6												
2 Bedroom	8												
3+ Bedroom	10												
	At least 50% of the required storage is to be located within the apartment												
	Design Guidance		CONSIDERED										
	Storage is accessible from either circulation or living areas	Capable of complying.	YES										
	Storage provided on balconies (in addition to the minimum balcony size) is integrated into the balcony design, weather proofed & screened from view from the street	Capable of complying.	YES										
	Left over space such as under stairs is used for storage	Capable of complying.	YES										
4G-2 p101	Objective: Additional storage is conveniently located, accessible & nominated for individual apartments		✓										
	Design Guidance		CONSIDERED										
	Storage not located in apartments is secure and clearly allocated to specific apartments	Capable of complying.	YES										
	Storage is provided for larger & less frequently accessed items	Capable of complying.	YES										
	Storage space in internal or basement car parks is provided at the rear or side of car spaces or in cages, such that allocated car parking remains accessible	Capable of complying.	YES										
	If communal storage rooms are provided they are accessible from common circulation areas of the building	Capable of complying.	YES										
	Storage not located in apartment is integrated into the overall building design & not visible from public domain	Capable of complying.	YES										
4H	ACOUSTIC PRIVACY												
4H-1 p103	Objective: Noise transfer is minimised through the siting of buildings & building layout		✓										
	Design Guidance		CONSIDERED										
	Adequate building separation is provided within the development & from neighbouring buildings/adjacent uses (see 2F Building Separation & 3F Visual Privacy)	Indicative reference design demonstrates scheme is capable of complying.	YES										
	Window & door openings are orientated away from noise sources	Capable of complying.	YES										
	Noisy areas within buildings including building entries & corridors are located next to or above each other while quieter areas are located next to or above quieter areas	Capable of complying.	YES										
	Storage, circulation areas & non-habitable rooms are located to buffer noise from external sources	Capable of complying.	YES										
	The number of party walls (shared with other apartments) are limited & are appropriately insulated	Capable of complying.	YES										
	Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces & circulation areas should be located at least 3m away from bedrooms	Capable of complying.	YES										
4H-2 p103	Objective: Noise impacts are mitigated within apartments through layout & acoustic treatments		✓										
	Design Guidance		CONSIDERED										
	Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions: Rooms with similar noise requirements are grouped together; Doors separate different use zones; Wardrobes in bedrooms are co-located to act as sound buffers	Capable of complying.	YES										

ADG Ref.	Item Description	Notes	Compliance
	Where physical separation cannot be achieved, noise conflicts are resolved using the following design solutions: Double or acoustic glazing; Acoustic seals; Use of materials with low noise penetration properties; Continuous walls to ground level courtyards where they do not conflict with streetscape or other amenity requirements	Capable of complying.	YES
<b>4J</b>	<b>NOISE &amp; POLLUTION</b>		
4J-1 p105	Objective: In noisy or hostile environments impacts of external noise & pollution are minimised through careful siting & layout		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	To minimise impacts the following design solutions are used: Physical separation between buildings & the noise or pollution source; Residential uses are located perpendicular to the noise source & where possible buffered by other uses; Non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses & communal open spaces; Non-residential uses are located at lower levels vertically separating residential component from noise or pollution source. Setbacks to the underside of residential floor levels are increased, relative to traffic volumes & other noise sources; Buildings respond to both solar access & noise. Where solar access is away from noise source, non-habitable rooms will provide a buffer; Where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferred; Landscape design reduces the perception of noise & acts as a filter for air pollution generated by traffic & industry	Capable of complying.	YES
	Where developments are unable to achieve Design Criteria, alternatives are considered in the following areas: Solar & daylight access, Private open space & balconies, Natural cross ventilation		YES
4J-2 p105	Objective: Appropriate noise shielding or attenuation techniques for building design, construction & choice of materials are used to mitigate noise transmission		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Design solutions to mitigate noise include: Limiting the number & size of openings facing noise sources, Providing seals to prevent noise transfer through gaps, Using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens), Using materials with mass and/or sound insulation or absorption properties eg solid balcony balustrades, external screens & soffits	Capable of complying.	YES
<b>4K</b>	<b>APARTMENT MIX</b>		
4K-1 p107	Objective: A range of apartment types & sizes is provided to cater for different household types now & into the future		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	A variety of apartment types is provided	Capable of complying.	YES
	The apartment mix is appropriate, taking into consideration: Distance to public transport, employment & education centres, Current market demands & projected future demographic trends, Demand for social & affordable housing, Different cultural & socioeconomic groups	Capable of complying.	YES
	Flexible apartment configurations are provided to support diverse household types & stages of life including single person households, families, multi-generational families & group households	Capable of complying.	YES
4K-2 p107	Objective: The apartment mix is distributed to suitable locations within the building		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Different apartment types are located to achieve successful facade composition & to optimise solar access	Capable of complying.	YES
	Larger apartment types are located on ground or roof level where there is potential for more open space, and on corners where more building frontage is available	Capable of complying.	YES
<b>4L</b>	<b>GROUND FLOOR APARTMENTS</b>		
4L-1 p109	Objective: Street frontage activity is maximised where ground floor apartments are located		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Direct street access are provided to ground floor apartments	Capable of complying.	YES



## Appendix A5

ADG Ref.	Item Description	Notes	Compliance
	Activity is achieved through front gardens, terraces & the facade of the building. Design solutions include: Both street, foyer & other common internal circulation entrances to ground floor apartments, Private open space is next to the street, Doors & windows face the street	Capable of complying.	YES
	Retail or home office spaces are located along street frontages	Ground floor frontages are generally residential dwellings activated with direct street entries.	NO
	Ground floor apartment layouts support SOHO use & provide opportunities for future conversion into commercial or retail areas. In these cases higher floor to ceiling heights & easy conversion to ground floor amenities are provided.	Higher floor to ceilings are proposed in the mixed use zone where non-residential uses are proposed at ground level.	NO
<b>4L-2</b> <b>p109</b>	<b>Objective: Design of ground floor apartments delivers amenity &amp; safety for residents</b>		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Privacy & safety are provided without obstructing casual surveillance. Design solutions include: Elevating private gardens & terraces above the street level by 1-1.5m (see pg 109 Figure 4L.4), Landscaping & private courtyards, Window sill heights minimise sight lines into apartments, Integrating balustrades, safety bars or screens with exterior design	Capable of complying.	YES
	Solar access is maximised through: High ceilings & tall windows, Trees & shrubs allow solar access in winter & shade in summer	Capable of complying.	YES
<b>4M</b>	<b>FACADES</b>		
<b>4M-1</b> <b>p111</b>	<b>Objective: Building facades provide visual interest along the street while respecting the character of the local area</b>		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Design solutions for front building facades include: Composition of varied building elements, Defined base, middle & top of buildings, Revealing & concealing certain elements	Capable of complying.	YES
	Building services are integrated within the overall facade	Capable of complying.	YES
	Building facades are well resolved with appropriate scale & proportion to streetscape & with consideration of human scale. Solutions include: Well composed horizontal & vertical elements, Variation in floor heights to enhance the human scale, Elements that are proportional & arranged in patterns, Public artwork or treatments to exterior blank walls, Grouping of floors or elements such as balconies & windows on taller buildings	Capable of complying.	YES
	Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights	Capable of complying.	YES
	Shadow is created on the facade throughout the day with building articulation, balconies & deeper window reveals	Capable of complying.	YES
<b>4M-2</b> <b>p111</b>	<b>Objective: Building functions are expressed by the facade</b>		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Building entries are clearly defined	Capable of complying.	YES
	Important corners are given visual prominence through change in articulation, materials or colour, roof expression or changes in height	Capable of complying.	YES
	Apartment layout is expressed externally through facade features such as party walls & floor slabs	Capable of complying.	YES
<b>4N</b>	<b>ROOF DESIGN</b>		
<b>4N-1</b> <b>p113</b>	<b>Objective: Roof treatments are integrated into the building design &amp; positively respond to the street</b>		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Roof design relates to the street. Design solutions include: Special roof features & strong corners, Use of skillion or very low pitch hipped roofs, Breaking down the massing of the roof by using smaller elements to avoid bulk, Using materials or pitched form complementary to adjacent buildings	Capable of complying.	YES

ADG Ref.	Item Description	Notes	Compliance
	Roof treatments are integrated with the building design. Design solutions include: Roof design is in proportion to the overall building size, scale & form, Roof materials complement the building, Service elements are integrated	Capable of complying.	YES
4N-2 p113	Objective: Opportunities to use roof space for residential accommodation & open space are maximised		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Habitable roof space are provided with good levels of amenity. Design solutions include: Penthouse apartments, Dormer or clerestory windows, Openable skylights	Capable of complying.	YES
	Open space is provided on roof tops subject to acceptable visual & acoustic privacy, comfort levels, safety & security considerations	Landscaped roof terraces are provided on some buildings where required to achieve communal open space requirements.	YES
4N-3 p113	Objective: Roof design incorporates sustainability features		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Roof design maximises solar access to apartments during winter & provides shade during summer. Design solutions include: Roof lifts to the north, Eaves & overhangs shade walls & windows from summer sun	Capable of complying.	YES
	Skylights & ventilation systems are integrated into the roof design	Capable of complying.	YES
40	<b>LANDSCAPE DESIGN</b>		
40-1 p115	Objective: Landscape design is viable & sustainable		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Landscape design is environmentally sustainable & can enhance environmental performance by incorporating: Diverse & appropriate planting, Bio-filtration gardens, Appropriately planted shading trees, Areas for residents to plant vegetables & herbs, Composting, Green roofs or walls	Capable of complying.	YES
	Ongoing maintenance plans are prepared	Capable of complying.	YES
	Microclimate is enhanced by: Appropriately scaled trees near the eastern & western elevations for shade, Balance of evergreen & deciduous trees to provide shading in summer & sunlight access in winter, Shade structures such as pergolas for balconies & courtyards	Capable of complying.	YES
	Tree & shrub selection considers size at maturity & the potential for roots to compete.	Capable of complying.	YES
40-2 p115	Objective: Landscape design contributes to streetscape & amenity		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Landscape design responds to the existing site conditions including: Changes of levels, Views, Significant landscape features including trees & rock outcrops	Capable of complying. Refer to indicative reference landscape design.	YES
	Significant landscape features are protected by: Tree protection zones, Appropriate signage & fencing during construction	Refer to accompanying Arborist report.	YES
	Plants selected are endemic to region & reflect local ecology	Capable of complying. Refer to indicative reference landscape design.	YES
4P	<b>PLANTING ON STRUCTURES</b>		
4P-1 p117	Objective: Appropriate soil profiles are provided		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Structures are reinforced for additional saturated soil weight	Capable of complying.	YES
	Soil volume is appropriate for plant growth, including: Modifying depths & widths according to planting mix & irrigation frequency, Free draining & long soil life span, Tree anchorage	Capable of complying.	YES

## Appendix A5

ADG Ref.	Item Description	Notes	Compliance								
	Minimum soil standards for plant sizes should be provided in accordance with:	Capable of complying.	YES								
	<table><tr><th>Site Area (sqm)</th><th>Recommended Tree Planting</th></tr><tr><td>Up to 850</td><td>1 medium tree per 50sqm of deep soil zone</td></tr><tr><td>850 - 1,500</td><td>1 large tree or 2 medium trees per 90sqm of deep soil zone</td></tr><tr><td>Greater than 1,500</td><td>1 large tree or 2 medium trees per 80sqm of deep soil zone</td></tr></table>	Site Area (sqm)	Recommended Tree Planting	Up to 850	1 medium tree per 50sqm of deep soil zone	850 - 1,500	1 large tree or 2 medium trees per 90sqm of deep soil zone	Greater than 1,500	1 large tree or 2 medium trees per 80sqm of deep soil zone		
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Greater than 1,500	1 large tree or 2 medium trees per 80sqm of deep soil zone										
4P-2 p117	Objective: Plant growth is optimised with appropriate selection & maintenance		✓								
	Design Guidance		CONSIDERED								
	Plants are suited to site conditions, considerations include:Drought & wind tolerance, Seasonal changes in solar access, Modified substrate depths for a diverse range of plants, Plant longevity	Capable of complying.	YES								
	A landscape maintenance plan is prepared	Capable of complying.	YES								
	Irrigation & drainage systems respond to: Changing site conditions, Soil profile & planting regime, Whether rainwater, stormwater or recycled grey water is used	Capable of complying.	YES								
4P-3 p117	Objective: Planting on structures contributes to the quality & amenity of communal & public open spaces		✓								
	Design Guidance		CONSIDERED								
	Building design incorporates opportunities for planting on structures. Design solutions include: Green walls with specialised lighting for indoor green walls, Wall design that incorporates planting, Green roofs, particularly where roofs are visible from the public domain, Planter boxes	Capable of complying.	YES								
	Note: structures designed to accommodate green walls should be integrated into the building facade & consider the ability of the facade to change over time										
4Q	UNIVERSAL DESIGN										
4Q-1 p119	Objective: Universal design features are included in apartment design to promote flexible housing for all community members		✓								
	Design Guidance		CONSIDERED								
	Developments achieve a benchmark of 15% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features	5% of market housing will be Adaptable in accordance with AS4299. 10% of social housing will be LH gold level and the remaining 90% will be LH silver level.	YES								
4Q-2 p119	Objective: A variety of apartments with adaptable designs are provided		✓								
	Design Guidance		CONSIDERED								
	Adaptable housing should be provided in accordance with the relevant council policy	Capable of complying.	YES								
	Design solutions for adaptable apartments include: Convenient access to communal & public areas, High level of solar access, Minimal structural change & residential amenity loss when adapted, Larger car parking spaces for accessibility, Parking titled separately from apartments or shared car parking arrangements	Capable of complying.	YES								
4Q-3 p119	Objective: Apartment layouts are flexible & accommodate a range of lifestyle needs		✓								
	Design Guidance		CONSIDERED								
	Flexible design solutions include:Rooms with multiple functions, Dual master bedroom apartments with separate bathrooms, Larger apartments with various living space options, Open plan 'loft' style apartments with only a fixed kitchen, laundry & bathroom	Capable of complying.	YES								

ADG Ref.	Item Description	Notes	Compliance
<b>4R</b>	<b>ADAPTIVE REUSE</b>		
4R-1 p121	Objective: New additions to existing buildings are contemporary, complementary & enhance area's identity & sense of place		N/A
4R-2 p121	Objective: Adapted buildings provide residential amenity but does not precluding future adaptive reuse		N/A
<b>4S</b>	<b>MIXED USE</b>		
4S-1 p123	Objective: Mixed use developments are provided in appropriate locations & provide active street frontages that encourage pedestrian movement.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Mixed use development are concentrated around public transport & centres	Non residential uses are located in the upper core alongside the light rail station	YES
	Mixed use developments positively contribute to the public domain. Design solutions include: Development addresses the street, Active frontages provided, Diverse activities & uses, Avoiding blank walls at the ground level, Live/work apartments on the ground floor level, rather than commercial	Capable of complying.	YES
4S-2 p123	Objective: Residential levels of the building are integrated within the development. Safety & amenity is maximised.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Residential circulation areas are clearly defined. Solutions include: Residential entries separated from commercial entries & directly accessible from the street, Commercial service areas separated from residential components, Residential car parking & communal facilities separated or secured, Security at entries & safe pedestrian routes are provided, Concealment opportunities are avoided	Capable of complying.	YES
	Landscaped communal open space are provided at podium or roof		YES
<b>4T</b>	<b>AWNING &amp; SIGNAGE</b>		
4T-1 p125	Objective: Awnings are well located and complement & integrate with the building design.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Awnings are located along streets with high pedestrian activity & active frontages	Capable of complying.	YES
	A number of the following design solutions are used: Continuous awnings are maintained & provided in areas with an existing pattern, Height, depth, material & form complements existing street character, Protection from sun & rain is provided, Awnings are wrapped around secondary frontages of corner sites, Awnings are retractable in areas without an established pattern	Capable of complying.	YES
	Awnings are located over building entries for address & public domain amenity	Capable of complying.	YES
	Awnings relate to residential windows, balconies, street tree planting, power poles & street infrastructure	Capable of complying.	YES
	Gutters & down pipes are integrated and concealed	Capable of complying.	YES
	Lighting under awnings is provided for pedestrian safety	Capable of complying.	YES
4T-2 p125	Objective: Signage responds to context & desired streetscape character.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Signage is integrated into building design & respond to scale, proportion & detailing of the development	Capable of complying.	YES
	Legible & discrete way finding is provided for larger developments	Capable of complying.	YES
	Signage is limited to being on & below awnings, and single facade sign on primary street frontages	Capable of complying.	YES
<b>4U</b>	<b>ENERGY EFFICIENCY</b>		
4U-1 p127	Objective: Development incorporates passive environmental design.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Adequate natural light is provided to habitable rooms	Capable of complying.	YES

## Appendix A5

ADG Ref.	Item Description	Notes	Compliance
	Well located, screened outdoor areas are provided for clothes drying	Capable of complying.	YES
4U-2 p127	Objective: Passive solar design is incorporated to optimise heat storage in winter & reduce heat transfer in summer.		✓
	<b>Design Guidance</b>		CONSIDERED
	A number of the following design solutions are used: Use of smart glass or other on north & west elevations, Thermal mass maximised in floors & walls of north facing rooms, Polished concrete floors, tiles or timber rather than carpet, Insulated roofs, walls & floors. Seals on window & door openings, Overhangs & shading devices such as awnings, blinds & screens	Capable of complying.	YES
	Provision of consolidated heating & cooling infrastructure is located in a centralised location (eg basement)	Capable of complying.	YES
4U-3 p127	Objective: Adequate natural ventilation to minimise the need for mechanical ventilation.		✓
	<b>Design Guidance</b>		CONSIDERED
	A number of the following design solutions are used: Rooms with similar usage are grouped together, Natural cross ventilation for apartments is optimised, Natural ventilation is provided to all habitable rooms & as many non-habitable rooms, common areas & circulation spaces as possible	Capable of complying.	YES
4V	<b>WATER MANAGEMENT &amp; CONSERVATION</b>		
4V-1 p129	Objective: Potable water use is minimised.		✓
	<b>Design Guidance</b>		CONSIDERED
	Water efficient fittings, appliances & wastewater reuse are incorporated	Capable of complying.	YES
	Apartments are individually metered	Capable of complying.	YES
	Rainwater is collected, stored & reused on site	Capable of complying.	YES
	Drought tolerant, low water use plants are used within landscaped areas	Capable of complying.	YES
4V-2 p129	Objective: Urban stormwater is treated on site before being discharged to receiving waters.		✓
	<b>Design Guidance</b>		CONSIDERED
	Water sensitive urban design systems are designed by a suitably qualified professional	Capable of complying.	YES
	A number of the following design solutions are used: Runoff is collected from roofs & balconies in water tanks and plumbed into toilets, laundry & irrigation, Porous & open paving materials is maximised, On site stormwater & infiltration, including bio-retention systems such as rain gardens or street tree pits	Capable of complying.	YES
4V-3 p129	Objective: Flood management systems are integrated into site.		✓
	<b>Design Guidance</b>		CONSIDERED
	Detention tanks are located under paved areas, driveways or in basements	Capable of complying.	YES
	On large sites, parks or open spaces are designed to provide temporary on site detention basins	Capable of complying.	YES
4W	<b>WASTE MANAGEMENT</b>		
4W-1 p131	Objective: Waste storage facilities are designed to minimise impacts on streetscape, building entry & amenity of residents.		✓
	<b>Design Guidance</b>		CONSIDERED
	Adequately sized storage areas for rubbish bins are located discreetly away from the front of the development or in basement car park	Capable of complying.	YES
	Waste & recycling storage areas are well ventilated	Capable of complying.	YES
	Circulation design allows bins to be easily manoeuvred between storage & collection points	Capable of complying.	YES
	Temporary storage are provided for large bulk items such as mattresses	Capable of complying.	YES
	Waste management plan is prepared	Capable of complying.	YES
4W-2 p131	Objective: Domestic waste is minimised by providing safe & convenient source separation & recycling.		✓
	<b>Design Guidance</b>		CONSIDERED
	All dwellings have a waste & recycling cupboard or temporary storage area of sufficient size to hold two days worth of waste & recycling	Capable of complying.	YES

ADG Ref.	Item Description	Notes	Compliance
	Communal waste & recycling rooms are in convenient & accessible locations related to each vertical core	Capable of complying.	YES
	For mixed use developments, residential waste & recycling storage areas & access is separate & secure from other uses	Capable of complying.	YES
	Alternative waste disposal methods such as composting is provided	Capable of complying.	YES
<b>4X</b>	<b>BUILDING MAINTENANCE</b>		
<b>4X-1</b> <b>p133</b>	Objective: Building design detail provides protection from weathering.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	A number of the following design solutions are used:;Roof overhangs to protect walls, Hoods over windows & doors to protect openings, Detailing horizontal edges with drip lines to avoid staining surfaces, Methods to eliminate or reduce planter box leaching, Appropriate design & material selection for hostile locations	Capable of complying.	YES
<b>4X-2</b> <b>p133</b>	Objective: Systems & access enable ease of maintenance.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	Window design enables cleaning from the inside of the building	Capable of complying.	YES
	Building maintenance systems are incorporated & integrated into the design of the building form, roof & facade	Capable of complying.	YES
	Design does not require external scaffolding for maintenance access	Capable of complying.	YES
	Manually operated systems such as blinds, sunshades & curtains are used in preference to mechanical systems	Capable of complying.	YES
	Centralised maintenance, services & storage are provided for communal open space areas within the building	Capable of complying.	YES
<b>4X-3</b> <b>p133</b>	Objective: Material selection reduces ongoing maintenance costs.		✓
	<b>Design Guidance</b>		<b>CONSIDERED</b>
	A number of the following design solutions are used: Sensors to control artificial lighting in common circulation & spaces, Natural materials that weather well & improve with time, such as face brickwork, Easily cleaned surfaces that are graffiti resistant, Robust & durable materials & finishes in locations which receive heavy wear & tear such as common circulation areas & lift interiors	Capable of complying.	YES