PTW Architects
Peddle Thorp & Walker P/L
ABN 23 000 454 624

Level 11
88 Phillip Street
Sydney NSW
Australia 2000

T +61 2 9232 5877
F +61 2 9221 4139
ptw.com.au

Document	SEPP 65 Assessment Report -Apartment Design Guide (ADG) compliance
Project	1&2 Murray Rose Avenue Sydney Olympic park
Project Number	PA015288
Client	Austino Propaty Group
Stage	Design Development Applicaion
Date	29/10/2018

	OBJECTIVE	DESIGN CRITERIA	PROPOSED	COMMENT
Part 3 Siting the Development				
Site Analysis	Objective 3A-1 Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context		✓	-Addresses SEPP and SOPA Masterplan 2030, -solar/view opportunity and shadow impact to wetland
Orientation	Objective 3B-1 Building types and layouts respond to the streetscape and site while optimising solar access within the development		✓	Building is orientated for maximum solar opportunity gain
	Objective 3B-2 Overshadowing of neighbouring properties is minimised during mid winter		✓	Minimising the impact to wetland (refer to shadow diagram)
Public Domain Interface	Objective 3C-1 Transition between private and public domain is achieved without compromising safety and security		✓	-All building entry lobbies have a street address. -External lift in site 1 provides access from brick pit park to communal open space
	Objective 3C-2 Amenity of the public domain is retained and enhanced		✓	Additional stairs provides visual link to the prick pit park through site link "Chase"

<table>
<tr><td rowspan="4">Communal and Public Open Space</td><td>Objective 3D-1 An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping</td><td colspan="3">1. Communal open space has a minimum area equal to 25% of the site (see figure 3D.3)
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)</td><td>✓</td><td>-Scheme allows for Communal Open Space greater than 25% of site area.(52.9%)
-Communal Open Space receives min 50% sunlight in mid winter</td></tr>
<tr><td colspan="4">Objective 3D-2 Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting</td><td>✓</td><td>-Communal open space can be directly accessed from all buildings.
-L8 roof garden has BBQ and seating facilities.</td></tr>
<tr><td colspan="4">Objective 3D-3 Communal open space is designed to maximise safety</td><td>✓</td><td>Controlled access to communal open space.</td></tr>
<tr><td colspan="4">Objective 3D-4 Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood</td><td>✓</td><td>Responds with 2 Murray Rose Ave through site link design</td></tr>
<tr><td rowspan="3">Deep Soil Zones</td><td rowspan="3">Objective 3E-1 Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality</td><td colspan="3">Deep soil zones are to meet the following minimum requirements:</td><td rowspan="3">✓</td><td rowspan="3">Complies with 9.5% Deep soil zone; However the minimum dimension is 2.5m to achieve this within the site.</td></tr>
<tr><td>Site Area</td><td>Min. Dimensions</td><td>Deep soil zone (% of site area)</td></tr>
<tr><td>Less than 650m^2</td><td>-</td><td>7%</td></tr>
</table>

		650m²– 1500m²	3m			
		Greater than 1500m²	6m			
		Greater than 1500m² with significant tree cover	6m			
Visual Privacy	Objective 3F-1 Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room	Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:			✓	Western façade above L9 is not separated. However the façade can be modified to comply with ADG in any future development.
		Building height	Habitable rooms and balconies	Non-habitable rooms		
		Up to 12m (4 storeys)	6m	3m		
		Up to 25m (5-8 storeys)	9m	4.5m		
		Over 25m (9+ storeys)	12m	6m		
	Objective 3F-2 Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space				✓	Perforated screen provides privacy without compromising on the outlook and views
Pedestrian Access and Entries	Objective 3G-1 Building entries and pedestrian access connects to and addresses the public domain				✓	All building entrance lobbies have a street address
	Objective 3G-2 Access, entries and pathways are accessible and easy to identify				✓	All building entrance lobbies have a level access
	Objective 3G-3 Large sites provide pedestrian links for access to streets and connection to destinations				✓	Through site link "Chase" provided

Vehicle Access	Objective 3H-1 Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes		✓	Paving, floor marking and signage is provided throughout pedestrian paths for site link
Bicycle and Car Parking	Objective 3J-1 Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas	For development in the following locations: • on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or • on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less The car parking needs for a development must be provided off street.	✓	-Provide min rate of RMS residential car parking -Provide min SOPA masterplan bicycle parking Refer to traffic report
	Objective 3J-2 Parking and facilities are provided for other modes of transport		✓	Provide under cover bicycle parking
	Objective 3J-3 Car park design and access is safe and secure		✓	Clearry identified lift lobby
	Objective 3J-4 Visual and environmental impacts of underground car parking are minimised		✓	-Level access from street to under ground car park -Ventilation screens integrated into façade design
	Objective 3J-5 Visual and environmental impacts of on-grade car parking are minimised		N/A	
	Objective 3J-6 Visual and environmental impacts of above ground enclosed car parking are minimised		✓	Loading zone through site link is covered by landscaping and does not face primary street frontage

Part 4 – Designing the Building					
Solar and Daylight Access		Objective 4A-1 To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space	1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas	✓	70.1% of apartments and POS receive 2 hours direct sunlight in mid winter
			2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter	✓	
			3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter	✓	6.1% of apartments receive no direct sunlight in mid winter
		Objective 4A-2 Daylight access is maximised where sunlight is limited		✓	Daylight from courtyard provides secondary light source
		Objective 4A-3 Design incorporates shading and glare control, particularly for warmer months		✓	Perforated screen provides shading
Natural Ventilation		Objective 4B-1 All habitable rooms are naturally ventilated		✓	All habitable room have openable windows or doors
		Objective 4B-2 The layout and design of single aspect apartments maximises natural ventilation		✓	Apartment depths are limited to 8m for open plan layout to maximise airflow

		Objective 4B-3 The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents	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	✓	61.1% of apartments have natural cross ventilation in the first 9 storeys
			2. Overall depth of a cross-over or cross- through apartment does not exceed 18m, measured glass line to glass line	✓	cross through apartment depth is 11m
Ceiling Heights		Objective 4C-1 Ceiling height achieves sufficient natural ventilation and daylight access	Measured from finished floor level to finished ceiling level, minimum ceiling heights are:	✓	-2.7m-3.2m(penthouse) for habitable rooms -2.4m for non habitable rooms
			Minimum ceiling height for apartment and mixed use buildings		
			Habitable Rooms: 2.7m		
			Non- Habitable: 2.4m		
			For 2 Storey Apartments: 2.7m for main living area floor		
			2.4m for second floor, where its area does not exceed 50% of the apartment area		
			Attic Spaces: 1.8m at edge of room with a 30 degree minimum ceiling slope		
			If located in mixed use areas: 3.3m for ground and first floor to promote future flexibility of use		
		Objective 4C-2 Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms		✓	The stacking of wet areas minimises bulkheads in habitable rooms
		Objective 4C-3 Ceiling heights contribute to the flexibility of building use over the life of the building		N/A	These areas will not be converted to non-residential uses

<table>
<tr><td rowspan="6">Apartment Size and Layout</td><td rowspan="2"></td><td rowspan="2">Objective 4D-1 The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity</td><td>1. Apartments are required to have the following minimum internal areas:
<table><tr><td>Apartment Types</td><td>Minimum Internal Area</td></tr><tr><td>Studio</td><td>35m^3</td></tr><tr><td>1 bedroom</td><td>50m^3</td></tr><tr><td>2 bedroom</td><td>70m^3</td></tr><tr><td>3 bedroom</td><td>90m^3</td></tr></table>The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m^2 each.
A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m^2 each.</td><td>✓</td><td>-1B 50-78m2
-2B 75-117m2
-3B 96-206m2
- 4B 229m2</td></tr>
<tr><td>2. Every habitable room must have 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 and air may not be borrowed from other rooms</td><td>✓</td><td>There is no borrowed light to habitable room</td></tr>
<tr><td rowspan="4"></td><td rowspan="2">Objective 4D-2 Environmental performance of the apartment is maximised</td><td>1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height</td><td>✓</td><td></td></tr>
<tr><td>2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window</td><td>✓</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table>

<table>
<tr><td></td><td></td><td>Objective 4D-3 Apartment layouts are designed to accommodate a variety of household activities and needs</td><td>1. Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space)</td><td>✓</td><td></td></tr>
<tr><td></td><td></td><td></td><td>2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space)</td><td>✓</td><td></td></tr>
<tr><td></td><td></td><td></td><td>3. Living rooms or combined living/dining rooms have a minimum width of:
• 3.6m for studio and 1 bedroom apartments
• 4m for 2 and 3 bedroom apartments</td><td>✓</td><td></td></tr>
<tr><td></td><td></td><td></td><td>4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts</td><td>✓</td><td>9.2m width of cross through apartments</td></tr>
<tr><td>Private Open Space and Balconies</td><td></td><td>Objective 4E-1 Apartments provide appropriately sized private open space and balconies to enhance residential amenity</td><td>1. All apartments are required to have primary balconies as follows:
<table>
<tr><th>Dwelling type</th><th>Minimum Area</th><th>Minimum Depth</th></tr>
<tr><td>Studio</td><td>4m³</td><td>-</td></tr>
<tr><td>1 bedroom</td><td>8m³</td><td>2m</td></tr>
<tr><td>2 bedroom</td><td>10m³</td><td>2m</td></tr>
<tr><td>3+ bedroom</td><td>12m³</td><td>2.4m</td></tr>
</table>
The minimum balcony depth to be counted as contributing to the balcony area is 1m</td><td>✓</td><td></td></tr>
<tr><td></td><td></td><td></td><td>2. For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m² and a minimum depth of 3m.</td><td>✓</td><td>Refer to drawing units marked as "Ground floor apartments"</td></tr>
</table>

		Objective 4E-2 Primary private open space and balconies are appropriately located to enhance liveability for residents		✓	Primary balconies are located adjacent to the living rooms
		Objective 4E-3 Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building		✓	Curved balconies contributes to the façade design and building form
		Objective 4E-4 Private open space and balcony design maximises safety		✓	Min 1.8m fence provided for ground floor POC
Common Circulation and Spaces		Objective 4F-1 Common circulation spaces achieve good amenity and	1. The maximum number of apartments off a circulation core on a single level is eight	✓	Max 11 apartments off a core. However, sunlight and natural ventilation are provided to common circulation areas/spaces
		properly service the number of apartments	2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40	✓	42 apartments sharing a single lift. However, lift volume, speed and performance has been advised by lift consultant.
		Objective 4F-2 Common circulation spaces promote safety and provide for social interaction between residents		✓	Direct access from entrance lobby to lifts. All lift lobbies have sunlight
Storage		Objective 4G-1 Adequate, well designed storage is provided in each apartment	In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:	✓	
			Dwelling Type: Storage size volume		
			Studio: 4m³		
			1 bedroom: 6m³		
			2 bedroom: 8m³		
			3+ bedroom: 10m³		
			At least 50% of the required storage is to be located within the apartment		
		Objective 4G-2 Additional storage is conveniently located, accessible and nominated for individual apartments		✓	All apartments have storage cages in basement (provides 50% of required storage volume)

Acoustic Privacy		Objective 4H-1 Noise transfer is minimised through the siting of buildings and building layout	✓	Adequate building separation provided.
		Objective 4H-2 Noise impacts are mitigated within apartments through layout and acoustic treatments	✓	Bed rooms are grouped together within the apartments
Noise and Pollution		Objective 4J-1 In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings	✓	Landscaped buffer zone contributes to minimizing the impact from Bennelong Park Way
		Objective 4J-2 Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission	✓	External screen and solid balcony balustrads act as noise shielding
Apartment Mix		Objective 4K-1 A range of apartment types and sizes is provided to cater for different household types now and into the future	✓	A variety of apartment types is provided
		Objective 4K-2 The apartment mix is distributed to suitable locations within the building	✓	Larger apartment types are located on the ground and higher floor levels
Ground Floor Apartments		Objective 4L-1 Street frontage activity is maximised where ground floor apartments are located	✓	Direct street access provided to ground floor apartments
		Objective 4L-2 Design of ground floor apartments delivers amenity and safety for residents	✓	Elevation of POC above the street level along Murray Rose Avenue and northern path adjacent to Brick Pit Park
Facades		Objective 4M-1 Building facades provide visual interest along the street while respecting the character of the local area	✓	Façade responds to the character of Olympic park facilities and Brickpit Park landscape
		Objective 4M-2 Building functions are expressed by the facade	✓	Perforated screen acts as a privacy screen, sun shading and architecutural feature
Roof Design		Objective 4N-1 Roof treatments are integrated into the building design and positively respond to the street	✓	Set backs and stepped roof breaks down the massing
		Objective 4N-2 Opportunities to use roof space for residential accommodation and open space are maximised	✓	L8 roof used for communal open space
		Objective 4N-3 Roof design incorporates sustainability features	✓	Roof space used for solar panels

Landscape Design		Objective 4O-1 Landscape design is viable and sustainable	✓	Appropriate planting provided incorporated with solar access
		Objective 4O-2 Landscape design contributes to the streetscape and amenity	✓	Landscape incorporated with existing gabion wall
Planting on Structures		Objective 4P-1 Appropriate soil profiles are provided	✓	
		Objective 4P-2 Plant growth is optimised with appropriate selection and maintenance	✓	
		Objective 4P-3 Planting on structures contributes to the quality and amenity of communal and public open spaces	✓	
Universal Design		Objective 4Q-1 Universal design features are included in apartment design to promote flexible housing for all community members	✓	10% of total apartments incorporate the silver universal design
		Objective 4Q-2 A variety of apartments with adaptable designs are provided	✓	10% of total apartments incorporate adaptable design
		Objective 4Q-3 Apartment layouts are flexible and accommodate a range of lifestyle needs	✓	Larger apartments have various living space options
Adaptive Reuse		Objective 4R-1 New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place	N/A	
		Objective 4R-2 Adapted buildings provide residential amenity while not precluding future adaptive reuse	N/A	
Mixed Use		Objective 4S-1 Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	N/A	
		Objective 4S-2 Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents	N/A	
Awnings and Signage		Objective 4T-1 Awnings are well located and complement and integrate with the building design	✓	Entrance lobbies are covered by a building strcture above
		Objective 4T-2 Signage responds to the context and desired streetscape character	✓	

Energy Efficiency		Objective 4U-1 Development incorporates passive environmental design	✓	Adequate lighting and ventilation to all habitable rooms
		Objective 4U-2 Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	✓	Slab projection and perforated screens are provided
		Objective 4U-3 Adequate natural ventilation minimises the need for mechanical ventilation	✓	Natural ventilation provided for all habitable rooms
Water Management and Conservation		Objective 4V-1 Potable water use is minimised	✓	Rainwater stored and reused on site
		Objective 4V-2 Urban stormwater is treated on site before being discharged to receiving waters	✓	Stormwater treatment tanks are provided
		Objective 4V-3 Flood management systems are integrated into site design	✓	Gabion wall heights are incorporated with flood levels
Waste Management		Objective 4W-1 Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents	✓	Adequately sized storage areas are provided with a prepared Waste Management Plan
		Objective 4W-2 Domestic waste is minimised by providing safe and convenient source separation and recycling	✓	Waste and recycling chutes are provided to all levels
Building Maintenance		Objective 4X-1 Building design detail provides protection from weathering	✓	Slab projection provides protection from weathering
		Objective 4X-2 Systems and access enable ease of maintenance	✓	Building manager and maintenance store rooms are provided
		Objective 4X-3 Material selection reduces ongoing maintenance costs	✓	Natural materials such as Gabion wall are used in the building base