

Attachment 5 ADG assessment table – DA-2022/169 36 Flinders St, Wollongong

Apartment Design Guide

Control	
<u>3A Site analysis</u>	
<p><i>Objective 3A-1</i></p> <p>Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context.</p>	<p>The applicant has provided a site and design analysis which demonstrates an understanding of the site's relationship to neighbouring development and the proposed building form.</p>
<u>3B Orientation</u>	
<p><i>Objective 3B-1</i></p> <p>Building types and layouts respond to the streetscape and site while optimising solar access within the development</p>	<p>Sun eye diagrams have been provided. Adequate solar access has been provided within the development. The layout responds to the streetscape.</p>
<p><i>Objective 3B-2</i></p> <p>Overshadowing of neighbouring properties is minimised during mid-winter</p>	<p>Overshadowing diagrams provided which demonstrates minimal overshadowing impacts upon neighbouring properties.</p>
<u>3C Public domain interface</u>	
<p><i>Objective 3C-1</i></p> <p>Transition between private and public domain is achieved without compromising safety and security</p>	<p>Generally acceptable, and the setback to Flinders St is provided with a continuous awning.</p>
<p><i>Objective 3C-2</i></p> <p>Amenity of the public domain is retained and enhanced</p>	<p>The proposed design is likely to enhance the pedestrian experience and public amenity of the area through a 3m setback for wider pathways away from traffic, upgrades to the footpath to ensure accessibility, covered awnings, and more active street frontages.</p>
<u>3D Communal and public open space</u>	
<p><i>Objective 3D-1</i></p> <p>An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.</p> <ol style="list-style-type: none"> 1. Communal open space has a minimum area equal to 25% of the site 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 	<p>An appropriate amount of COS is provided.</p> <p>Site Area 4,769sqm</p> <p><u>Communal Open Space Requirement</u></p> <p>Minimum 25% of Site Area = 1,192sqm</p> <p><u>Total Communal Open Space Provided</u></p> <p>1,678sqm = 35.2% of the Site Area (Complies)</p>

<p><i>Objective 3D-2</i></p> <p>Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting</p>	<p>A lawn area, seating areas, tables and BBQ have been provided at podium level, with more lawn, seating and BBQ areas provided at the lower ground floor. Improvements have been made to these spaces to integrate them together.</p> <p>Vegetable/herb gardens along with fruit trees are highly encouraged within the COS space to provide future residents with additional variety of amenity and facilities.</p>
<p><i>Objective 3D-3</i></p> <p>Communal open space is designed to maximise safety</p>	<p>The COS appears to be directly accessible from the street frontage through the southern lobby.</p> <p>Fixed perimeter bench seating has been provided along perimeter planter beds at the eastern end of the Level 1 COS space. The TOW heights noted on the plans indicate the potential for climbability which would then require additional balustrades and screening on top of the planter which is not supported.</p> <p>This has been conditioned.</p>
<p><i>Objective 3D-4</i></p> <p>Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood</p>	<p>NA – no public open space</p>
<p><u>3E Deep soil zones</u></p>	
<p><i>Objective 3E-1</i></p> <p>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</p> <p>1. Deep soil zone is 7% of site area with a minimum dimension of 6m</p>	<p>Adequate deep soil planting provided.</p> <p>Site Area- 4,769sqm</p> <p><u>7% Deep Soil Requirement</u></p> <p>Minimum % of Site Area = 334sqm</p> <p><u>Total Deep Soil Provided</u></p> <p>412sqm = 9% of the Site Area</p> <p>inc. 216sqm with minimum 3m width (4%)</p> <p>Minimum required dimension for deep soil is 6m for a site of this size, therefore total deep soil does not comply with ADG, however use of the rear space as COS in lieu of exclusive DSZ is supported, therefore acceptable in this instance.</p>
<p><u>3F Visual privacy</u></p>	
<p><i>Objective 3F-1</i></p> <p>Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy</p> <p>1. Building separation (habitable):</p> <ul style="list-style-type: none"> - 4 storeys 6m - 5-8 storeys 9m 	<p>9m setbacks to the side boundaries have been provided for levels 2-7 (up to 8th storey), 18m between buildings and 10m to the rear which is compliant.</p> <p>The top floor (9th storey) is setback 12m with 24m between levels. Only 10m has been provided to the rear, however due to the rear site being a 6m wide stormwater channel this is acceptable.</p>

- 9+ storeys 12m	
<p><i>Objective 3F-2</i></p> <p>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</p>	<p>Planters should be added between the various large POS terrace spaces on Level 1 to increase visual privacy between units. A planter on either side of the dividing privacy fence/screen would soften the visual impact of the POS party wall and screen while providing additional privacy between the POS spaces. This should also be considered for the parts of POS areas of Units A104, A105, B106, and B107 which sit adjacent to the COS entries and walkways. This may require some minor configuration to adjacent glazing.</p> <p>A narrow planter along the eastern edge of all street frontage POS spaces on Level 1 should also be considered to increase visual privacy and acoustics from the busy street.</p> <p>This has been conditioned.</p>
<u>3G Pedestrian access and entries</u>	
<p><i>Objective 3G-1</i></p> <p>Building entries and pedestrian access connects to and addresses the public domain</p>	<p>Generally, entrances front street with clear residential lobbies.</p>
<p><i>Objective 3G-2</i></p> <p>Access, entries and pathways are accessible and easy to identify</p>	<p>Generally acceptable, clear access from the ground floor parking to shops is provided, through a separate commercial lobby.</p> <p>Satisfactory for residential and retail areas.</p>
<p><i>Objective 3G-3</i></p> <p>Large sites provide pedestrian links for access to streets and connection to destinations</p>	<p>NA – site is unlikely to connect to other sites.</p>
<u>3H Vehicle access</u>	
<p><i>Objective 3H-1</i></p> <p>Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes</p>	<p>Generally, the location of the driveway is acceptable, and reduces the number of driveway crossings significantly from the current conditions.</p>
<u>3J Bicycle and car parking</u>	
<p><i>Objective 3J-1</i></p> <p>Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas</p>	<p>Car parking complies.</p>
<p><i>Objective 3J-2</i></p> <p>Parking and facilities are provided for other modes of transport</p>	<p>Bicycle parking and motorcycle parking are provided within the parking areas.</p>
<i>Objective 3J-3</i>	

Car park design and access is safe and secure	Carparking is generally controlled through boom gate access, a secure roller door has been added to prevent pedestrian access to residential area.
<i>Objective 3J-4</i> Visual and environmental impacts of underground car parking are minimised	No impacts are anticipated.
<i>Objective 3J-5</i> Visual and environmental impacts of on-grade car parking are minimised	Ground floor parking is sleeved to the street with retail which is appropriate while providing amenity for business premises.
<i>Objective 3J-6</i> Visual and environmental impacts of above ground enclosed car parking are minimised	Two levels of basement appear as above ground to the rear and need to be appropriately treated.
Part 4 Designing the building	
<u>4A Solar and daylight access</u>	
<i>Objective 4A-1</i> To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space 1. 70% receive 2 hours sunlight between 9am and 3pm on winter solstice 3. Maximum of 15% receive no direct sunlight between 9am and 3pm on winter solstice	Sun eye diagrams have been provided to demonstrate compliance. Unit B101 has been identified on the solar compliance table as complying with the 2hr minimum, however does not provide 2 hrs to both the living and POS area. Therefore, the total number of units complying with solar is 81 (not 82) which complies as this equates to 71%.
<i>Objective 4A-2</i> Daylight access is maximised where sunlight is limited	It appears as if this has been attempted and satisfactory.
<i>Objective 4A-3</i> Design incorporates shading and glare control, particularly for warmer months	No detail provided at this stage, however balconies provide some shading.
<u>4B Natural ventilation</u>	
<i>Objective 4B-1</i> All habitable rooms are naturally ventilated	Habitable rooms are all adequately naturally ventilated. Some non-habitable rooms also naturally ventilated which is highly encouraged.
<i>Objective 4B-2</i> The layout and design of single aspect apartments maximises natural ventilation	Generally acceptable and improved.
<i>Objective 4B-3</i> The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents	72 out of 114 units (63%) are naturally cross ventilated, therefore compliance is achieved.

<ol style="list-style-type: none"> 1. 60% of apartments are naturally cross ventilated 2. Overall depth of an apartment does not exceed 18m 	
<u>4C Ceiling heights</u>	
<p><i>Objective 4C-1</i></p> <p>Ceiling height achieves sufficient natural ventilation and daylight access</p> <ol style="list-style-type: none"> 1. Minimum ceiling height of 2.7m for habitable rooms, 2.4m for non-habitable rooms, 3.3m for ground and first floor in mixed use areas 	<p>Ceiling heights are compliant. Level 1 is nominated as residential use.</p> <p>Ground floor is required to have a ceiling height of 3.3m, however 3m ceiling heights have been noted for ground floor on all detailed sections. This is considered to be acceptable in this instance.</p>
<p><i>Objective 4C-2</i></p> <p>Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms</p>	Acceptable.
<p><i>Objective 4C-3</i></p> <p>Ceiling heights contribute to the flexibility of building use over the life of the building</p>	Acceptable.
<u>4D Apartment size and layout</u>	
<p><i>Objective 4D-1</i></p> <p>The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity</p> <ol style="list-style-type: none"> 1. Minimum apartment size: <ul style="list-style-type: none"> - Studio 35sqm - 1-bedroom 50sqm - 2-bedroom 70sqm - 3-bedroom 90sqm 2. Every habitable room must have a window with a total minimum glass area of not less than 10% of the floor area of the room. 	All apartments meet minimum areas.
<p><i>Objective 4D-2</i></p> <p>Environmental performance of the apartment is maximised</p> <ol style="list-style-type: none"> 1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height 2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window 	Apartments all appear to meet minimum depths.
<i>Objective 4D-3</i>	

<p>Apartment layouts are designed to accommodate a variety of household activities and needs</p> <ol style="list-style-type: none"> 1. Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space) 2. Bedrooms have a minimum dimension of 3m (exc wardrobe) 3. Living rooms or combined living/dining rooms have a minimum width of: <ul style="list-style-type: none"> - 3.6m for studio / 1 bed - 4m for 2+ beds 4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts 	<p>Apartments generally appear to meet minimum requirements for size.</p> <p>ADG Design Guidance states “Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas.”</p> <p>This has not been achieved for units A105, A107, B102, B208-B708, B806 where bedroom doors have been located directly off living/dining/kitchen spaces.</p> <p>In units A107, B102, and B104 access to the bathroom from the associated bedroom requires one to go through the living, kitchen or dining space which is not suitable.</p> <p>While not an ideal outcome, this is considered to be satisfactory in this instance as the majority of units in such a large development achieve compliance with this objective.</p>
4E Private open space and balconies	
<p>Objective 4E-1</p> <p>Apartments provide appropriately sized private open space and balconies to enhance residential amenity</p> <ol style="list-style-type: none"> 1. Minimum balconies: <ul style="list-style-type: none"> - Studio 4sqm - 1 bed 8sqm / 2m depth - 2 bed 10sqm / 2m - 3 bed 12sqm / 2.4m 2. Podium level apartments have a POS of 15sqm and depth of 3m 	<p>POS appears to be compliant.</p>
<p>Objective 4E-2</p> <p>Primary private open space and balconies are appropriately located to enhance liveability for residents</p>	<p>The layout of the development has been improved for privacy impacts as per the previous comments from the DRP.</p>
<p>Objective 4E-3</p> <p>Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building</p>	<p>Some air conditioning (AC) units have been located in areas which are not well screened and are fully visible from the adjacent internal space. For example, in Units A105, A202, A203, A206, A207, B201, B105, and B106. Some units (eg. Unit A201-A701) have not shown the location of the AC unit at all. This is to be rectified to ensure all AC units are well screened from internal spaces, street frontages, and from neighbouring properties.</p> <p>This has been conditioned.</p>
<p>Objective 4E-4</p> <p>Private open space and balcony design maximises safety</p>	<p>Acceptable.</p>

<u>4F Common circulation and spaces</u>	
<p><i>Objective 4F-1</i></p> <p>Common circulation spaces achieve good amenity and properly service the number of apartments</p> <ol style="list-style-type: none"> 1. The maximum number of apartments off a circulation core on a single level is eight 2. For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40 	<p>There are generally 8 units per floor, with 2 lifts servicing 58 units in Tower A and 2 lifts servicing 61 units in Tower B.</p> <p>Natural ventilation does not appear to have been provided to all lobby areas above ground. The fixed glazing to all common lobbies and corridors is to be replaced with operable windows to ensure natural ventilation can be achieved.</p> <p>This has been conditioned.</p>
<p><i>Objective 4F-2</i></p> <p>Common circulation spaces promote safety and provide for social interaction between residents</p>	<p>Generally, circulation is acceptable within the towers, though the ground floor units and corridor are long and convoluted and pose access issues as listed above.</p>
<u>4G Storage</u>	
<p><i>Objective 4G-1</i></p> <p>Adequate, well designed storage is provided in each apartment</p> <ol style="list-style-type: none"> 1. Storage required, of which 50% is in the apartment: <ul style="list-style-type: none"> • Studio 4m³ • 1 bed 6 m³ • 2 bed 8 m³ • 3+ bed 10 m³ 	<p>Storage generally appears compliant. Storage Schedule has been provided.</p>
<p><i>Objective 4G-2</i></p> <p>Additional storage is conveniently located, accessible and nominated for individual apartments</p>	<p>Generally acceptable.</p>
<u>4H Acoustic privacy</u>	
<p><i>Objective 4H-1</i></p> <p>Noise transfer is minimised through the siting of buildings and building layout</p>	<p>Generally acceptable, removal of proposed child care facility has improved noise impacts.</p>
<p><i>Objective 4H-2</i></p> <p>Noise impacts are mitigated within apartments through layout and acoustic treatments</p>	<p>Generally acceptable.</p>
<u>4J Noise and pollution</u>	
<p><i>Objective 4J-1</i></p> <p>In noisy or hostile environments, the impacts of external noise and pollution are minimised through the careful siting and layout of buildings</p>	<p>Flinders St is a highly trafficked and noisy road. Compliance with the submitted acoustic report and NSW SEPP Transport & Infrastructure 2021 – Development</p>

	Near Rail Corridors & Busy Roads –Interim Guideline is required. This has been conditioned.
<p><i>Objective 4J-2</i></p> <p>Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission</p>	Acceptable by Council's Environment Officer and conditions provided.
<u>4K Apartment mix</u>	
<p><i>Objective 4K-1</i></p> <p>A range of apartment types and sizes is provided to cater for different household types now and into the future</p>	The development includes 114 units, of which 17 are one bed (15%), 57 are two bed (50%) and 40 are 3 bed units (35%). This is likely to be an appropriate mix in this area.
<p><i>Objective 4K-2</i></p> <p>The apartment mix is distributed to suitable locations within the building</p>	Generally acceptable, with units spread throughout the building for a mix of household types.
<u>4L Ground floor apartments</u>	
<p><i>Objective 4L-1</i></p> <p>Street frontage activity is maximised where ground floor apartments are located</p>	NA
<p><i>Objective 4L-2</i></p> <p>Design of ground floor apartments delivers amenity and safety for residents</p>	NA
<u>4M Facades</u>	
<p><i>Objective 4M-1</i></p> <p>Building facades provide visual interest along the street while respecting the character of the local area</p>	<p>Generally acceptable and improved from the previous design.</p> <p>The brick finish appears to terminate at ground level on the north elevation, and it is unclear what the exposed material is for the lower portion of the podium wall. It is recommended that the brickwork continue all the way down to natural ground (as per the south elevation). This has been amended in revised plans and acceptable.</p>
<p><i>Objective 4M-2</i></p> <p>Building functions are expressed by the façade</p>	<p>Generally acceptable, with brick for the commercial podium and lighter materials to the residential towers.</p> <p>The gold and silver colour/material shown on the residential entry portals along the eastern façade street frontage have been identified on the finishes schedule.</p>
<u>4N Roof design</u>	
<p><i>Objective 4N-1</i></p>	Roof design and treatments have been amended to allow for solar access and respond positively to the street.

Roof treatments are integrated into the building design and positively respond to the street	
<p><i>Objective 4N-2</i></p> <p>Opportunities to use roof space for residential accommodation and open space are maximised</p>	<p>Not used due to the development already falling above the building height plane.</p> <p>This space will likely be needed for services.</p>
<p><i>Objective 4N-3</i></p> <p>Roof design incorporates sustainability features</p>	<p>Roof includes a small area for PV solar panels. The extent and number of solar panels should be increased to service as much of the building as possible (eg. All common areas, corridors, lobbies, basement parking, outdoor spaces etc).</p> <p>This has been conditioned.</p>
<u>4O Landscape design</u>	
<p><i>Objective 4O-1</i></p> <p>Landscape design is viable and sustainable</p>	<p>Landscape referral has been returned satisfactory.</p> <p>Ensure natural turf is provided and not substituted with artificial turf.</p> <p>This has been conditioned.</p>
<p><i>Objective 4O-2</i></p> <p>Landscape design contributes to the streetscape and amenity</p>	<p>Generally acceptable, and landscape referral has been returned satisfactory.</p>
<u>4P Planting on structures</u>	
<p><i>Objective 4P-1</i></p> <p>Appropriate soil profiles are provided</p>	<p>Generally acceptable, and landscape referral has been returned satisfactory.</p>
<p><i>Objective 4P-2</i></p> <p>Plant growth is optimised with appropriate selection and maintenance</p>	<p>Generally acceptable, and landscape referral has been returned satisfactory.</p>
<p><i>Objective 4P-3</i></p> <p>Planting on structures contributes to the quality and amenity of communal and public open spaces</p>	<p>Generally acceptable, and landscape referral has been returned satisfactory.</p>
<u>4Q Universal design</u>	
<p><i>Objective 4Q-1</i></p> <p>Universal design features are included in apartment design to promote flexible housing for all community members</p>	<p>12 out of 114 units (10%) provided as accessible.</p> <p>24 out of 114 units (21%) provided as silver livable.</p>
<p><i>Objective 4Q-2</i></p> <p>A variety of apartments with adaptable designs are provided</p>	<p>Adaptable units have been re-designed to comply with requirements. Acceptable and conditions imposed on consent.</p>
<i>Objective 4Q-3</i>	

Apartment layouts are flexible and accommodate a range of lifestyle needs	The apartment layouts are flexible.
<u>4R Adaptive reuse</u>	
<i>Objective 4R-1</i> New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place	NA
<i>Objective 4R-2</i> Adapted buildings provide residential amenity while not precluding future adaptive reuse	NA
<u>4S Mixed use</u>	
<i>Objective 4S-1</i> Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	Generally acceptable, as the site is within 400m of North Wollongong Station and on prominent bus routes, with access to school, employment, and other services.
<i>Objective 4S-2</i> Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents	Generally acceptable
<u>4T Awnings and signage</u>	
<i>Objective 4T-1</i> Awnings are well located and complement and integrate with the building design	Awning generally appears acceptable.
<i>Objective 4T-2</i> Signage responds to the context and desired streetscape character	No detail regarding signage provided. Will require separate development approvals.
<u>4U Energy efficiency</u>	
<i>Objective 4U-1</i> Development incorporates passive environmental design	Acceptable.
<i>Objective 4U-2</i> Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	Acceptable solar design is provided throughout the building.
<i>Objective 4U-3</i> Adequate natural ventilation minimises the need for mechanical ventilation	Natural ventilation provided to the residential units. Natural ventilation does not appear to have been provided to all lobby areas above ground. The fixed glazing to all common lobbies and corridors is to be replaced with operable windows to ensure natural ventilation can be achieved. This has been conditioned

<u>4V Water management and conservation</u>	
<p><i>Objective 4V-1</i></p> <p>Potable water use is minimised</p>	No reuse proposed, BASIX requirements to be met.
<p><i>Objective 4V-2</i></p> <p>Urban stormwater is treated on site before being discharged to receiving waters</p>	Acceptable, conditions provided by Council's Stormwater Engineers.
<p><i>Objective 4V-3</i></p> <p>Flood management systems are integrated into site design</p>	Acceptable, conditions provided by Council's Stormwater Engineers.
<u>4W Waste management</u>	
<p><i>Objective 4W-1</i></p> <p>Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents</p>	Waste storage areas appear to be acceptable.
<p><i>Objective 4W-2</i></p> <p>Domestic waste is minimised by providing safe and convenient source separation and recycling</p>	Two waste chutes have been provided for each tower, and bulky waste provided at the base of the northern tower.
<u>4X Building maintenance</u>	
<p><i>Objective 4X-1</i></p> <p>Building design detail provides protection from weathering</p>	Generally, balconies provide protection.
<p><i>Objective 4X-2</i></p> <p>Systems and access enable ease of maintenance</p>	No detail provided.
<p><i>Objective 4X-3</i></p> <p>Material selection reduces ongoing maintenance costs</p>	The use of brick is supported, however large amounts of finishes above the podium level are painted finishes which will require ongoing maintenance or glass which requires cleaning.