

Block 1, Central Park

RFDC & Draft Apartment Design Guide – Compliance Table

Current RFDC Rules-of-Thumb	Draft Apartment Design Guide	Compliance/Response
Communal and Public Open Space		
The area of communal open space required should generally be at least between 25 and 30 percent of the site area. Where developments are unable to achieve the recommended communal open space, such as those in dense urban areas, they must demonstrate that residential amenity is provided in the form of increased private open space and / or in a contribution to public open space	Communal open space has a minimum area equal to 25% of the site area. Where developments are unable to achieve the recommended 25% communal open space, they should: - Provide communal spaces elsewhere such as a landscaped roof top terrace or a common room. - Provide increased private open space or balconies. - Demonstrate good proximity to public open space and / or provide contributions to public open space.	Complies Communal open/amenity spaces have been provided within the building at the communal terrace (Level 16) and communal lounge adjacent to the swimming pool (Level 02) to supplement these private balcony and loggia spaces. Overall this is the equivalent to 34% of the site area for Block 1 well in excess of the requirements contained within the RFDC or draft ADG. It is also noted the significant areas of open space on the site and in close proximity (Chippendale Green, Wentworth park, Prince Alfred Park, and Victoria Park)
	Solar access is provided to 50% of the principal useable portion of the communal open space for a minimum of 2 hours between 9am and 3pm in mid-winter.	As demonstrated in the view from the sun diagrams as part of the Daylight Access Analysis prepared by WSP (Attachment B of the Additional Information Response Letter), it is demonstrated that the communal open space located on level 16 will achieve in excess of three hours of solar access in accordance with the draft ADG
Deep Soil Zones		
A minimum of 25% of the open space area of a site should be a deep soil zone; more is desirable. Exceptions may be made in urban areas where sites are built out and there is no capacity for water infiltration.	Deep soil zones are to generally be provided in line with the following requirements: Reductions to deep soil zone requirements should demonstrate that the development provides planting on structure and addresses stormwater management in accordance with section 4F planting on structures and 4U water management and conservation. Some circumstances where alternative solutions may be acceptable include: - Lack of space for deep soil at ground level due to the building typology and its relationship to the site. For example a tower within a central business district or shop top housing in a centre. - The ground floor is predominantly non-residential, site coverage is 100% and the site is located within a centre. It is demonstrated that deep soil coverage is maximised and / or alternative planting on the structure is provided.	As noted in the draft ADG, given the location of the site, combined basement below Blocks 1 and 4N as well as ground floor retail uses, and pedestrian links, deep soil landscaping isn't possible in the context of the subject site. In response, significant public domain treatment and landscaping is proposed to the western side of Block 1, within the link between Block 1 and lock 4N (as shown on the revised Architectural Plans and Landscape details). In this space, a water feature is also proposed adjacent Block 4N (refer to Block 4N SSD). The planting proposed in this location and surrounding the site on Broadway has been designed to support mature growth trees, allowing room below the footpath level for growth and expansions.
Building Separation and Visual Privacy		
Up to 4 storeys (12m): 12m between habitable rooms/balconies; 9m between habitable & non-habitable rooms; and 6m between non-habitable rooms.	Separation distances from buildings to the side and rear boundaries are as follows. Up to 12m / 4 storeys: 6m from habitable rooms and balconies. 3m from non-habitable rooms.	The development of the form of the building in accordance with the specific controls defined by the Concept plan and RFDC separation principles. The RFDC as well as City of Sydney DCP have heavily influenced how the building's tower element has been formed including stepping at the upper level and greater setback on the sites western façade.

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5 to 8 storeys (up to 25m) ▪ 18 m between habitable rooms/balconies ▪ 13 m between habitable rooms/balconies & non-habitable rooms ▪ 9 m between non-habitable rooms 9 storeys and above (over 25m) ▪ 24m between habitable rooms/balconies ▪ 18m between habitable/balconies & non-habitable rooms; ▪ 12m between non-habitable rooms	Up to 25m (5-8 storeys) ▪ 9m from habitable rooms and balconies. ▪ 4.5m from non-habitable rooms. Over 25m (9+ storeys) ▪ 12m from habitable rooms and balconies. ▪ 6m from non-habitable rooms.	Block 1 provides a separation distance from Block 4N (hotel) of 22.4m from habitable rooms to the Block 4N façade, and in excess of 30m to the east across Central park Avenue to the western tower of Block 2. The separation of Block 1 from Block4N, along with the change of use to residential, has also resulted in the improvement in the solar access to the wider master plan providing clearer vistas of the Old Brewery building and park from the main thoroughfare of Broadway. The proposed scheme for Block 1 is also keeping in scale with the overall massing of the adjacent buildings being proposed or built along Broadway. This is also reflected in the comparable spaces between the proposed and constructed buildings. Please refer to the visualisation along Broadway between Heritage Gate and Abercrombie Street prepared at the request of the DPE and submitted with the Reponses to Submission/PPR package														
Bicycle and car parking																
No control	Car Parking rates close to public transport: <table><tr><th colspan="2">Metropolitan Sydney</th></tr><tr><th>Location</th><th>Minimum Requirement</th></tr><tr><td>Sites within 400m of a railway station or light rail stop in nominated inner and middle ring metropolitan Sydney areas</td><td>No specific requirement</td></tr><tr><td>Sites within 400m of a railway station or light rail stop in the remainder of metropolitan Sydney areas</td><td>The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less</td></tr><tr><td>Sites within 400 – 800 metres of a railway station or light rail stop</td><td>The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less</td></tr><tr><th colspan="2">Nominated Regional Centres</th></tr><tr><td>Land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre.</td><td>The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less.</td></tr></table>	Metropolitan Sydney		Location	Minimum Requirement	Sites within 400m of a railway station or light rail stop in nominated inner and middle ring metropolitan Sydney areas	No specific requirement	Sites within 400m of a railway station or light rail stop in the remainder of metropolitan Sydney areas	The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less	Sites within 400 – 800 metres of a railway station or light rail stop	The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less	Nominated Regional Centres		Land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre.	The relevant requirement set out in the RMS' Guide to Traffic Generating Development or the car parking requirement prescribed by the relevant council, whichever is less.	Car Parking The proposed scheme complies with the maximum car parking provision in accordance with the applicable environmental Planning Instrument being the Sydney Local Environmental Plan 2005, as well as the Central Park Concept Plan. In addition to residential car parking, a number of car-share spaces will be provided within the combined basement below Blocks 1 + 4N in addition to those already provided across the site and within the east basement (below Block 2). Bicycle Parking As required by Sydney DCP 2012, each apartment is provide space for the storage of a bicycle. In addition to residential storage, spaces are provided for visitors and staff within the basement. Given the management arrangement of the building having a 24 hour concierge, providing visitor parking within the basement, access can be controlled and monitored by the concierge and the resident. In addition to basement residential visitor bicycle parking a number of publically accessible visitor bicycle parking spaces are already provided within the areas of Public domain across the Central Park site.
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	The numbers of visitor spaces are limited, particularly in basements, to 1 space per every 10 apartments.	The proposed scheme complies with the maximum car parking provision in accordance with the applicable environmental Planning Instrument being the Sydney Local Environmental Plan 2005, as well as the Central Park Concept Plan.												
Solar Access														
Living rooms and private open spaces for at least 70 percent of apartments in a development should receive a minimum of three hours direct sunlight between 9 am and 3 pm in mid-winter. In dense urban areas a minimum of two hours may be acceptable.	Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9am and 3pm in mid-winter. Apartments that receive direct sunlight in accordance with the acceptable solution above need to demonstrate that a person is able to sit in the sun in a habitable room or on a balcony of an apartment in mid winter between 9am and 3pm.	Please refer to separate documentation within the SSDA and PPR submission for further detail prepared by WSP – Attachment ## of the Additional Information Letter <i>In accordance with the rule of thumb within the RFDC, 2 hours of solar access (direct sunlight) to the living rooms and private open spaces between 9am and 3pm on 21 June (Winter Solstice)” was measured.</i> The % of apartments to receive 2 or more hours of direct sunlight between 9am – 3pm - 21 June is provided in the table below. <table><tr><th colspan="2">SEPP 65/RFDC</th></tr><tr><td>Living room windows</td><td>35%</td></tr><tr><td>Private open space</td><td>62%</td></tr></table> The % of apartments to receive 2 or more hours of direct sunlight to the private open space and habitable rooms (including living rooms and bedrooms) between 7:30am – 4:30pm and 9am and 3pm on 21 June is also provided below. <table><tr><th colspan="2">Habitable Rooms</th></tr><tr><td>Living room windows +</td><td>44% - (9am -3pm)</td></tr><tr><td>Bedroom windows (Habitable rooms)</td><td>49% - (7.30am -4.30pm)</td></tr></table>	SEPP 65/RFDC		Living room windows	35%	Private open space	62%	Habitable Rooms		Living room windows +	44% - (9am -3pm)	Bedroom windows (Habitable rooms)	49% - (7.30am -4.30pm)
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Limit the number of single-aspect apartments with a southerly aspect (SW-SE) to a maximum of 10 percent of the total units proposed. Developments which seek to vary from the minimum standards must demonstrate how site constraints and orientation prohibit the achievement of these standards and how energy efficiency is addressed (see Orientation and Energy Efficiency).	A maximum of 15% of apartments in a building have no direct sunlight between 9am and 3pm in mid-winter. There may be some circumstances or locations where an alternative solution is proposed because 3 hours of direct sunlight in mid-winter is not achievable. It needs to be demonstrated that the number of apartments receiving direct sunlight has been maximised. Design drawings need to demonstrate how site constraints and orientation preclude the achievement of acceptable solutions in this section and how the development meets the performance criteria. Circumstances where this may apply include: • where apartments face greater than 20 degrees east or west of north • in major centres or areas characterised by high density development • where greater residential amenity can be achieved along a busy road or rail line by orienting living rooms away from the noise source • on south facing slopes • where significant views are oriented away from the desired aspect for direct sunlight	The proposal is generally consistent with this RFDC control as shown on the revised Architectural Plans. On a typical, accounting for dual key apartment being occupied separately, only 3 apartment are south facing (13%). The proposal has been designed to maximise the level of solar access available to the living rooms windows and private open space, as well as habitable rooms including bedrooms. The calculations of solar access compliance are provided at in the Daylight Access Analysis and addressed above.												

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	- In these circumstances the development should receive a minimum of 2 hours of direct sunlight to 70% of living rooms and balconies at mid winter. - Where buildings face within 20 degrees east or west of south, apartments should maximise dual aspect or have narrow depth for single aspect apartments.	
Common circulation and spaces		
In general where units are arranged off a double-loaded corridor, the number of units accessible from a single core corridor should be limited to eight	The maximum number of apartments off a circulation core on a single level is eight	General circulation corridors within the building have been designed to be generous in width for ease of use by wheelchair and clear lines of sight to create a safe environment. This is further enhanced by the fact the corridors receive daylight from full height glazed windows connecting you with the surrounding city. The windows also allow for the circulation corridors to be naturally ventilated. The proposed floorplate is similar to other residential buildings already approved and built in the precinct and within the CBD as discussed in the Foster + Partners PPR report submitted previously. In accordance with the alternative solution listed in the draft ADG variations to the number of apartments per core is considered acceptable given the floorplate design of the building, which imported slots allowing views, natural ventilation and daylight. This is discussed in detail as part of the Foster + Partners Response to submission report submitted with the RTS/PPR.
Apartment Layout		
If Council chooses to standardise apartment sizes, a range of sizes that do not exclude affordable housing should be used. As a guide, the Affordable Housing Service suggest the following minimum apartment sizes which can contribute to housing affordability: (apartment assize is only one factor influencing affordability) 1 Bedroom apartment 50m² 2 Bedroom apartment 70m² 3 Bedroom apartment 95m²	- Studio - 35m² 1 bedroom - 50m² 2 bedroom - 70m² 3 bedroom - 95m²	Apartments within the proposed development generally comply, if not exceed these guidelines. Please refer to the revised Architectural drawings for "call-out" typical apartment typologies plans for further details of each type. These were submitted to the DPE as part of the RTS/PPR.
- The back of a kitchen should be no more than 8m from a window. - Single-aspect apartments should be limited in depth to 8m from a window.	For open plan layouts, combining the living room, dining room and kitchen, the back of the kitchen is a maximum of 8 metres from a window Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space) Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	Generally, the apartment layouts are compliant with the provisions of the RFDC and ADG. As shown on the individual apartment typology plans, kitchens are located within an apartment on a typical floor to not exceed a distance of 8.00m from the façade line.
The width of cross-over or cross-through apartments over 15m deep should be 4 metres or greater to avoid deep narrow apartment layouts.	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	There is a range of single and double aspect apartments within the building where the kitchens of any apartment is no more than 8 metres from the external facade. Each have a range of amenities incorporated into the layouts which include private balconies or loggias, natural daylighting and that there are no apartments over 15 metres in depth. Please refer to the Architectural Plans submitted with the RTS/PPR for further details.

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Ceiling Heights			
- In Mixed Use buildings: 3.3m minimum for ground floor retail or commercial and for first floor retail, residential or commercial. - Minimum 2.7m for all habitable rooms.	Measured from finished floor level to finished ceiling level, minimum ceiling heights are:	Retail The retail areas at ground floor provide ceiling heights compliant with this requirement. Due to the nature of the site with the way Broadway slopes east-west, the retail in most cases exceed this minimum requirement. Please refer to the planning application drawings for further details. Residential Ceiling heights within residential apartments on all floors achieve the 2.7m height within habitable rooms. In the case of Level 03, the apartments achieve ceiling heights within the habitable areas of 3.0m. Please refer to the planning application drawings for further details.	
	Minimum Ceiling Height - For apartments and mixed use buildings		
	Habitable Rooms		2.7m
	Non-habitable Rooms		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		1.5m at edge of room with a 30 degree minimum ceiling slope
	If located in mixed use areas		3.3m for ground floor to promote future flexibility of use.
Private Open Space and Balconies			
Min 2m dimension required for balconies.	Primary balconies are provided for all apartments with the following minimum area and depth according to apartment size. - For 1 bedroom apartments, a minimum area of 8m² and a minimum depth of 2m. - For 2 bedroom apartments, a minimum area of 10m² and a minimum depth of 2.5m. - For 3+ bedroom apartments, a minimum area of 12m² and a minimum depth of 2.5m. Alternative solutions such as Juliet balconies, operable walls, enclosed wintergardens or bay windows may be appropriate where balcony use is limited by: - Consistently high wind speeds at 9 storeys and above. - Close proximity to road, rail or other noise sources. - Exposure to significant levels of aircraft noise. An increase in communal open space should be provided where size of balconies are reduced.	Balcony and loggia provided within Block 1 have a minimum depth of 1.8m however they have been configured to ensure tables and chairs can be arranged to provide a useable area for residents. Details of this arrangement including the layout of furniture as an extension of the living space has been included in the RTS/PPR report prepared by Foster + Partners. Whilst there are minor non-compliances with the minimum depth dimension, the spaces have been design carefully to be highly usable in a space that will contribute to the usability of adjacent internal areas. The balconies are appropriately located to the dwellings and appropriately sized Additional amenity spaces have been provided within the building at communal terrace (Level 16) and communal lounge adjacent to the swimming pool (Level 02) to supplement these private balcony and loggia spaces. The site overall provide 34% of communal open space, of which over 200sqm is provided on the communal terrace level on Level 16 with expansive views south over Chippendale towards Botany Bay.	
Ventilation			
Sixty percent (60%) of residential units should be naturally cross-ventilated.	At least 60% of apartments are naturally cross ventilated.	The layout and configuration of a typical floor has been developed to include “slots” within the floorplate to improve the number of apartments which can be naturally ventilated. The 10 apartments (55% of the total on a typical floor) which can be naturally ventilated is comparable to the other schemes used as examples as shown within the DPE Response Report. With regards the natural ventilation of the kitchens, they are located within the open plan living areas utilising the fresh air from loggias and balconies. The distance of the kitchen to an opening is consistent with the RFDC rules of thumb.	
	For buildings 9 storeys and over an appropriately qualified wind consultant has confirmed that 60% of apartments achieve cross ventilation.	As required by the draft ADG, the building ventilation of the proposal has been reviewed, and report prepared by consultants, WSP.	
Building depths, which support natural ventilation typically range from 10 to 18m.	Overall building depth does not exceed 12-18 metres.	The objectives of the RFDC state:	

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		▪ To ensure that the bulk of the development is in scale with the existing or desired future context. ▪ To provide adequate amenity for building occupants in terms of sun access and natural ventilation. Likewise, the objectives of the draft ADG building depth control are to: ▪ Ensure building depths support apartment layouts that meet the performance criteria and acceptable solutions within the Apartment Design Guide ▪ Ensure that the bulk of the development is in scale with the existing or desired future context The typical floor plate does exceed the RFDC recommended building depth, however, the layouts have been developed to include "slots" which allows natural daylight to penetrate and illuminate the general circulation corridors. The slots also allow apartments adjacent to these slots opportunities to have additional windows further improving the daylight amenity for these units. Despite the depth variation, given the design, the proposal is consistent with the objectives of the controls for both the Residential Flat Design Code and draft ADG These slots also provide the opportunity to naturally ventilate these spaces with openable windows, potential cross-ventilating these spaces. The proposed scheme for Block 1 is also keeping in scale with the overall massing of the adjacent buildings being proposed or built along Broadway. Please refer to the visualisation along Broadway between Heritage Gate and Abercrombie Street prepared at the request of the DPE.
Twenty five percent (25%) of kitchens within a development should have access to natural ventilation.	In dual aspect apartments external window and door opening sizes/areas on one side of an apartment (inlet side) are approximately equal to the external window and door opening sizes/areas on the other side of the apartment (outlet side).	The proposal complies with this control.
Storage		
In addition to kitchen cupboards and bedroom wardrobes, provide associated storage facilities at the following rates: ▪ Studio apartments - 6m³ ▪ One bedroom apartment - 6m³ ▪ Two bedroom apartment - 8m³ ▪ Three plus bedroom apartment - 10m³ At least 50% of this should be located within the apartment.	No change to RFDC Control	The design of the apartments and basement have been designed in compliance to these guidelines. This information has been collated and included within the PPR documentation for Block 1 as requested by the DPE and Council letters. The information is shown on the individual apartment typology layouts, dedicated basement drawings and area allocation spreadsheet within the PPR documentation.