



DEREK RAITHBY
ARCHITECTURE

SEPP 65 Design Verification Statement

RESIDENTIAL DEVELOPMENT
At 101 Lilyfield Road, Lilyfield, NSW 2040

Prepared for
Ozzy States

Project No. D1515

February 2017

**REF: DESIGN VERIFICATION STATEMENT
AT 101 LILYFIELD ROAD, LILYFIELD**

Pursuant to Clause 50 (1A) and (1AB) of the Environmental Planning and Assessment Regulation 2000, I hereby declare that I am a qualified designer, which means a person registered as an architect in accordance with the Architects Act 2003 as defined by Clause 3 of the Environmental Planning and Assessment Regulation 2000.

I directed the design of the residential Apartment development stated above and I confirm that the design achieves the design quality principles set out in Schedule 1 of the State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development.

Sincerely,



Derek Raithby.
Director, ARBN 7469
B.Sc. Arch., B. Arch.

Table 1: Apartment Design Guide Compliance Table

Objective	Design Criteria	Compliance
PART 3 – SITING THE DEVELOPMENT		
3A – Site Analysis		
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	-	Yes - The proposal includes a site analysis plan and survey plan. Additional documents including SEE will be provided at DA stage.
3B Orientation		
3B – 1 Building types and layouts respond to the streetscape and site while optimising solar access within the development	-	Yes - The building maintains a reasonable solar access to the proposed dwellings and adjoining neighbours.
3B – 2 Overshadowing of neighbouring properties is minimised during mid- winter	-	Yes – Adjoining properties are outside shadow cast. Shadow diagrams will be provided at DA Stage.
3C Public Domain Interface		
3C – 1 Transition between private and public domain is achieved without compromising safety and security	-	Yes – In addition a coffee shop is proposed on the ground floor to increase transition and maintain existing use.
3C – 2 Amenity of the public domain is retained and enhanced		Yes
3D Communal and Public Open Space		
3D – 1 An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping	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 9am and 3pm on 21 June	1. Yes - The proposal provides 172 m ² or 26% of communal open space. 2. Yes.
3D – 2 Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting	-	Yes - The proposal includes common open space at roof top level with different designated areas.
3D – 3 Communal open space is designed to maximise safety	-	Yes. Planters and balustrades with a minimum height of 1m are provided alongside the edge of the rooftop.

3D – 4 Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood	-	Yes.												
3E – Deep Soil Zones														
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	1. Deep soil zones are to meet the following minimum requirements: <table><tr><th>Site area</th><th>Minimum dimension</th><th>Deep soil zone (% of site area)</th></tr><tr><td>< than 650m²</td><td>-</td><td rowspan="4">7%</td></tr><tr><td>650m² – 1,500m²</td><td>3m</td></tr><tr><td>> than 1,500m²</td><td>6m</td></tr><tr><td>Greater than 1,500m² with significant existing tree cover</td><td>6m</td></tr></table>	Site area	Minimum dimension	Deep soil zone (% of site area)	< than 650m ²	-	7%	650m ² – 1,500m ²	3m	> than 1,500m ²	6m	Greater than 1,500m ² with significant existing tree cover	6m	Yes – The proposal provides 241.8 m ² or 37.17% of deep soil.
Site area	Minimum dimension	Deep soil zone (% of site area)												
< than 650m ²	-	7%												
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> than 1,500m ²	6m													
Greater than 1,500m ² with significant existing tree cover	6m													
3F – Visual Privacy														
3F – 1 Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy	1. 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: <table><tr><th>Building height</th><th>Habitable rooms and balconies</th><th>Non-habitable rooms</th></tr><tr><td>Up to 12m (4 storeys)</td><td>6m</td><td>3m</td></tr><tr><td>Up to 25m (5-8 storeys)</td><td>9m</td><td>4.5m</td></tr><tr><td>Over 25m (9+ storeys)</td><td>12m</td><td>6m</td></tr></table>	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	Yes – The design provides 12m separation between habitable rooms. Refer to plans.
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												
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	-	Yes – Privacy/shadow devices were incorporated into the design.												
3G – Pedestrian Access and Entries														
3G -1 Building entries and pedestrian access connects to and addresses the public domain	-	Yes.												
3G – 2 Access, entries and pathways are accessible and easy to identify	-	Yes. Further drawings will be provided at DA stage.												

3G – 3 Large sites provide pedestrian links for access to streets and connection to destinations	-	Yes.
3H Vehicle Access		
3H – 1 Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes	-	Yes – Further drawings will be provided at DA stage.
3J – Bicycle and Car Parking		
3J – 1 Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas	<p>1. For development in the following locations:</p> <ul style="list-style-type: none"> 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 <p>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</p>	Yes. Further details will be provided at DA stage.
3J – 2 Parking and facilities are provided for other modes of transport	-	Yes – Traffic report will be provided at DA stage.
3J – 3 Car park design and access is safe and secure	-	Yes.
3J – 4 Visual and environmental impacts of underground car parking are minimised	-	N/A
3J – 5 Visual and environmental impacts of on-grade car parking are minimised	-	Yes.
3J – 6 Visual and environmental impacts of above ground	-	N/A

enclosed car parking are minimised		
PART 4 – DESIGNING THE BUILDING		
Amenity		
4A – Solar and Daylight Access		
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 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	Yes. 8 of 8 (100%) units receive at least 2 hours of direct sunlight.
4A – 2 Daylight access is maximised where sunlight is limited	-	Yes.
4A – 3 Design incorporates shading and glare control, particularly for warmer months	-	Yes.
4B Natural Ventilation		
4B – 1 All habitable rooms are naturally ventilated		Yes - Further details will be provided at DA stage.
4B – 2 The layout and design of single aspect apartments maximises natural ventilation	-	Yes.
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 2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line	Yes. 100% units are naturally ventilated. Further details will be provided at DA stage.

4C – 1	1. Measured from finished floor level to finished ceiling level, minimum ceiling heights are:	Yes - Further drawings will be provided at DA stage.														
Ceiling height achieves sufficient natural ventilation and daylight access	<table><tr><th colspan="2">Minimum ceiling height for apartment and mixed use buildings</th></tr><tr><td>Habitable rooms</td><td>2.7m</td></tr><tr><td>Non- habitable rooms</td><td>2.4m</td></tr><tr><td>For 2 storey apartments</td><td>2.7m for main living area floor 2.4m for second floor, where its area does not exceed 50% of the apartment area</td></tr><tr><td>Attic spaces</td><td>1.8m at edge of room with a 30 degree minimum ceiling slope</td></tr><tr><td>If located in mixed use areas</td><td>3.3m for ground and first floor to promote future flexibility of use</td></tr><tr><td colspan="2">These minimums do not preclude high ceilings if desired</td></tr></table>	Minimum ceiling height for apartment 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	1.8m 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	These minimums do not preclude high ceilings if desired		
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4C – 2	-	Yes														
Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms																
4C – 3	-	Yes														
Ceiling heights contribute to the flexibility of building use over the life of the building																
4D Apartment size and layout																
4D – 1	1. Apartments are required to have the following minimum internal areas:	Yes – Refer to Floor Plans.														
The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity	<table><tr><th>Apartment Type</th><th>Minimum internal area</th></tr><tr><td>Studio</td><td>35m²</td></tr><tr><td>1 bedroom</td><td>50m²</td></tr><tr><td>2 bedroom</td><td>70m²</td></tr><tr><td>3 bedroom</td><td>90m²</td></tr></table> <p>The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m2 each A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m2 each</p> <p>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</p>	Apartment Type	Minimum internal area	Studio	35m²	1 bedroom	50m²	2 bedroom	70m²	3 bedroom	90m²					
Apartment Type	Minimum internal area															
Studio	35m²															
1 bedroom	50m²															
2 bedroom	70m²															
3 bedroom	90m²															
4D – 2	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	Yes – Refer to Floor Plans.														
Environmental performance of the apartment is maximised																

	maximum habitable room depth is 8m from a window																
4D – 3 Apartment layouts are designed to accommodate a variety of household activities and needs	1. Master bedrooms have a minimum area of 10m ² and other bedrooms 9m ² (excluding wardrobe space) 2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space) 3. Living rooms or combined living/dining rooms have a minimum width of: <ul style="list-style-type: none"> ▪ 3.6m for studio and 1 bedroom apartments ▪ 4m for 2 and 3 bedroom apartments 4. The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	Yes – Refer to Floor Plans.															
4E – Private Open Space and Balconies																	
4E – 1 Apartments provide appropriately sized private open space and balconies to enhance residential amenity	1. All apartments are required to have primary balconies as follows: <table border="1" data-bbox="593 869 1029 1115"> <thead> <tr> <th>Dwelling Type</th><th>Minimum area</th><th>Minimum depth</th></tr> </thead> <tbody> <tr> <td>Studio Apartments</td><td>4m²</td><td>-</td></tr> <tr> <td>1 bedroom</td><td>8m²</td><td>2m</td></tr> <tr> <td>2 bedroom</td><td>10m²</td><td>2m</td></tr> <tr> <td>3+ bedroom</td><td>12m²</td><td>2.4m</td></tr> </tbody> </table> The minimum balcony depth to be counted as contributing to the balcony area is 1m 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 15m ² and a minimum depth of 3m	Dwelling Type	Minimum area	Minimum depth	Studio Apartments	4m ²	-	1 bedroom	8m ²	2m	2 bedroom	10m ²	2m	3+ bedroom	12m ²	2.4m	Yes – Refer to Floor Plans.
Dwelling Type	Minimum area	Minimum depth															
Studio Apartments	4m ²	-															
1 bedroom	8m ²	2m															
2 bedroom	10m ²	2m															
3+ bedroom	12m ²	2.4m															
4E – 2 Primary private open space and balconies are appropriately located to enhance liveability for residents	-	Yes															
4E – 3 Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building	-	Yes															
4E – 4 Private open space and balcony design maximises safety	-	Yes															
4F Common Circulation and Spaces																	

4F – 1 Common circulation spaces achieve good amenity and properly service the number of apartments	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	Yes - the proposal provides two apartments per circulation core and eight apartments in total										
4F – 2 Common circulation spaces promote safety and provide for social interaction between residents	-	Yes - the proposal utilises robust materials in circulation areas.										
4G Storage												
4G – 1 Adequate, well designed storage is provided in each apartment	1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided: <table><tr><th>Dwelling Type</th><th>Storage size volume</th></tr><tr><td>Studio apartments</td><td>4m³</td></tr><tr><td>1 bedroom</td><td>6m³</td></tr><tr><td>2 bedroom</td><td>8m³</td></tr><tr><td>3+ bedroom</td><td>10m³</td></tr></table> At least 50% of the required storage is to be located within apartment	Dwelling Type	Storage size volume	Studio apartments	4m³	1 bedroom	6m³	2 bedroom	8m³	3+ bedroom	10m³	Yes – At least 50% of the required storage is to be located within apartment. Refer to plans.
Dwelling Type	Storage size volume											
Studio apartments	4m³											
1 bedroom	6m³											
2 bedroom	8m³											
3+ bedroom	10m³											
4G- 2 Additional storage is conveniently located, accessible and nominated for individual apartments.	-	Yes – as above.										
4H Acoustic Privacy												
4H – 1 Noise transfer is minimised through the siting of buildings and building layout	-	Yes - Further details will be provided at DA stage.										
4H – 2 Noise impacts are mitigated within apartments through layout and acoustic treatments	-	Yes.										
4J Noise and Pollution												
4J - 1 In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings	-	Yes - The proposed development complies with the requirements of the BCA. Party walls have been designed with the minimum RW rating according to BCA The majority of the apartment layouts provide similar rooms adjoining each other where possible. Noise from external sources will be treated to ensure										

		compliance with Council's requirements.
4J – 2 Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission	-	Yes – as above.
Configuration		
4K Apartment Mix		
4K – 1 A range of apartment types and sizes is provided to cater for different household types now and into the future	-	Yes – The proposal provides 4 – 1 bedroom apartments and studios and 4 2 bedroom apartments. Refer to Floor Plans.
4K – 2 The apartment mix is distributed to suitable locations within the building	-	Yes – Refer to Floor Plans.
4L Ground Floor Apartments		
4L - 1 Street frontage activity is maximised where ground floor apartments are located	-	N/A – No ground floor apartment provided.
4L – 2 Design of ground floor apartments delivers amenity and safety for residents	-	N/A - No ground floor apartment provided.
4M Facades		
4M – 1 Building facades provide visual interest along the street while respecting the character of the local area	-	Yes - The building elements have been designed with regard to the elements, textures, materials and colours of the existing neighbourhood. The façade is intended to reduce the visual bulk of the building. Ventilations louvres and car park entry are coordinated with overall façade design. A detailed schedule of materials and finishes has been submitted with the DA.
4M – 2 Building facades provide visual interest along the street while respecting the character of the local area	-	Yes – as above.
4N Roof Design		

4N – 1 Roof treatments are integrated into the building design and positively respond to the street	-	Yes – The roof design is appropriate as it relates to the desired built form and minimises overshadowing and visual impact.
4N – 2 Opportunities to use roof space for residential accommodation and open space are maximised	-	Yes – The proposal provides rooftop. Refer to Roof Plan.
4N – 3 Roof design incorporates sustainability features	-	Yes.
4O – Landscape Design		
4O – 1 Landscape design is viable and sustainable	-	Yes – The proposal includes landscaping at ground level at the front and rear of the building and at the rooftop terrace. A landscape plan will be provided with min. 80% native plant species. – Further details will be provided at DA stage.
4O – 2 Landscape design contributes to the streetscape and amenity	-	Yes. – Further details will be provided at DA stage.
4P Planting on structures		
4P – 1 Appropriate soil profiles are provided	-	Yes - Further details will be provided at DA stage.
4P – 2 Plant growth is optimised with appropriate selection and maintenance	-	Yes - Further details will be provided at DA stage.
4P – 3 Planting on structures contributes to the quality and amenity of communal and public open spaces	-	Yes - Further details will be provided at DA stage.
4Q Universal Design		
4Q – 1 Universal design features are included in apartment design to promote flexible housing for all community members	-	Yes.
4Q – 2 A variety of apartments with adaptable designs are provided	-	Yes .
4Q – 3	-	Yes.

Apartment layouts are flexible and accommodate a range of lifestyle needs		
4R – Adaptive Reuse		
4R – 1 New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place	-	N/A
4R – 2 Adapted buildings provide residential amenity while not precluding future adaptive reuse	-	N/A
4S Mixed use		
4S – 1 Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	-	N/A
4S – 2 Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents	-	N/A
4T Awnings and signage		
4T – 1 Awnings are well located and complement and integrate with the building design	-	N/A
4T – 2 Signage responds to the context and desired streetscape character	-	Yes - Further details will be provided at DA stage.
Performance		
4U Energy Efficiency		
4U – 1 Development incorporates passive environmental design	-	Yes -Further details will be provided at DA stage.
4U – 2 Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	-	

4U – 3 Adequate natural ventilation minimises the need for mechanical ventilation	-	Yes. 100% units are naturally ventilated - Further details will be provided at DA stage.
4V – Water Management and Conservation		
4V – 1 Potable water use is minimised	-	Yes - Further details will be provided at DA stage.
4V – 2 Urban stormwater is treated on site before being discharged to receiving waters	-	Yes - Further details will be provided at DA stage.
4V – 3 Flood management systems are integrated into site design	-	Yes - Further details will be provided at DA stage.
4W – Waste Management		
4W – 1 Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents	-	Yes – The proposal provides waste area on ground level - refer to Ground Floor Plan.
4W – 2 Domestic waste is minimised by providing safe and convenient source separation and recycling	-	Yes – Refer to plans and further details will be provided at DA stage.
4X – Building Maintenance		
4X – 1 Building design detail provides protection from weathering	-	Yes - Maintenance has been addressed as follows: The roof is accessible for maintenance only with the provision of service ladders to comply with Australian Standards and OH&S. Materials will be durable and cleanable. Landscape elements are appropriate for the site condition, with the selection of hardy, low maintenance plantings and hardscape.
4X – 2 Systems and access enable ease of maintenance	-	Yes – as above.
4X – 3 Material selection reduces ongoing maintenance costs	-	Yes – as above.