



Job 2757/Sikh Grammar School Australia

07/10/2020

Planning Industry & Environment
NSW Government

Attention: Prity Cleary

Ref: SSDA 9472

Apartment Design Guide Assessment

ARCHITECTURE
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Dear Prity,

**Proposed Sikh Grammar School (SSD 9472)
151-161 TALLAWONG ROAD, ROUSE HILL (LOTS 42 & 43 DP 30186)**

Achieving the objectives

Parts 3 and 4 of the Apartment Design Guide (ADG) provide objectives, design criteria and design guidance for the siting, design and amenity of apartment development. Each topic area is structured to provide the user with:

1. A **description** of the topic and an explanation of its role and importance.
2. **Objectives** that describe the desired design outcomes
3. **Design criteria** that provide the measurable requirements for how an objective can be achieved.
4. **Design guidance** that provides advice on how the objectives and design criteria can be achieved through appropriate design responses, or in the cases where design criteria cannot be met.

The key to working with Parts 3 and 4 of the ADG, is that a development needs to demonstrate how it meets the objective and design criteria. The design criteria set a clear measurable benchmark for how the objective can be practically achieved. If it is not possible to satisfy the design criteria, applications must demonstrate what other design responses are used to assist in this.

Not all sections within Parts 3 and 4 specify design criteria. In these instances the design guidance should be referred to when demonstrating how an objective is being achieved.

SEPP 65 sets out certain matters in Parts 3 and 4 that apply in place of development control plans. This removes uncertainty when there are conflicting provisions for these matters in development control plans.

The below assessment considers the relevant sections of the ADG in the context of the Site and Proposed Development pertaining to the proposed Student Accommodation proposed. Further assessment against the criteria and guidelines of

NSW Nominated Architects:
Andrew Pender 5317
Vicki van Dijk 9476

PMDL Architecture & Design Pty Ltd
ABN 56 062 961 317
PMDL Architecture & Design HK
Limited

the ADG will be subject during the detailed design and completion of the Student Accommodation building as proposed on the Site Masterplan prepared by PMDL

A handwritten signature in black ink, appearing to read 'Vicki van Dijk', with a stylized, flowing script.

Vicki van Dijk
Practice Director

PMDL

encl.

Details of Apartment Design Guide Assessment.

Apartment Design Guide - Architect's Assessment

Item	Requirement	Y	N	Comment
Part 3	Siting the development			
Item	3A Site Analysis			
Objective	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.	Y		We confirm compliance with the requirements. The building is challenged by the need to form an engaging edge to the street and the program within the school.
Item	3B Orientation			
Objective	Objective 3B-1 Buildings types and layouts respond to the streetscape and site while optimising solar access within the development.	Y		We confirm compliance with the requirements. The planning takes advantage of northern aspect while responding to the streetscape. Southern apartments are mitigated with pop-up clearstory.
Objective	Objective 3B-2 Overshadowing of neighbouring properties is minimised during mid winter.	Y		We confirm compliance with the requirements. With the apartments being sited on the upper level of the building, the design recedes away from the neighbouring housing to the west. Overshadowing falls on the adjacent roof.
Item	3C Public Domain Interface			
Objective	Objective 3C-1 Transition between private and public domain is achieved without comprising safety and security.	Y		We confirm compliance with the requirements.
Objective	Objective 3C-2 Amenity of the public domain is retained and enhanced.	Y		We confirm compliance with the requirements.
Item	3D Communal and Public Open Space			
Objective	Objective 3D-1 An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.	Y		We confirm compliance with the requirements. The adjacent western rooftop terrace is completely dedicated to the six apartments.
Design criteria	1. Communal open space has a minimum area equal to 25% of the site.	Y		We confirm compliance with the requirements. See roof top deck adjacent to apartments.

Apartment Design Guide - Architect's Assessment

Item	Requirement	Y	N	Comment
	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 (mid winter).	Y		We confirm compliance with the requirements. This is exceeded as the roof deck faces due north.
Objective	Objective 3D-2 Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting.	Y		We confirm compliance with the requirements. The proposed offer is of a high quality roof deck able to be used for a variety of activities supportive of communal use.
Objective	Objective 3D-3 Communal open space is designed to maximise safety.	Y		We confirm compliance with the requirements. The space is safe and secure.
Objective	Objective 3D-4 Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood.	Y		We confirm compliance with the requirements. Building is well set back from the street to a greater distance to neighbouring built form.
Item	3E Deep soil zones			
Objective	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.	Y		We confirm compliance with the requirements. There are large areas on the northern streetscape with deep soil for the growing of trees. As a site-wide strategy, the building complies with requirements for deep- soil zones.
Item	3F Visual privacy			
Objective	Objective 3F-1 Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.	Y		We confirm compliance with the requirements. Each apartment enjoys private aspect with all other buildings being further than 20 meters away. The building is setback 9m for the boundary, refer DA102.

Apartment Design Guide - Architect's Assessment

Item	Requirement	Y	N	Comment
Design criteria	<p>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:</p> <p>Note:</p> <ul style="list-style-type: none"> - Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2) - Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties 	Y		The apartments are designed to ensure more than adequate separation between balconies and windows.
Objective	Objective 3F-2 Site and building design elements increase privacy without compromising access to light and air balance outlook and views from habitable rooms and private open space	Y		We confirm compliance with the requirements. All apartments achieve privacy without compromise to light and ventilation to habitable rooms and private open space.
Item	3G Pedestrian access and entries			
Objective	Objective 3G-1 Building entries and pedestrian access connects to and addresses the public domain.	Y		The main entry is obvious and intuitive from the street. A secondary entry is also present from within the school itself.
Objective	Objective 3G-2 Access, entries and pathways are accessible and easy to identify.	Y		We confirm compliance with the requirements.
Objective	Objective 3G-3 Large sites provide pedestrian links for access to streets and connection to destinations.	Y		The main entry is easily accessible from the street with obvious way finding.
Item	3H Vehicle access			
Objective	Objective 3H-1 Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes.	Y		The undercroft parking and associated driveway are designed to separate potential conflicts with pedestrian access to ensure safety and maintain a desirable street address.

Apartment Design Guide - Architect's Assessment

Item	Requirement	Y	N	Comment
Item	3J Bicycle and car parking			
Objective	Objective 3J-1 Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas.	Y		We confirm compliance with the requirements.
Objective	Objective 3J-2 Parking and facilities are provided for other modes of transport.	Y		We confirm compliance with the requirements.
Objective	Objective 3J-3 Car park design and access is safe and secure.	Y		We confirm compliance with the requirements.
Objective	Objective 3J-4 Visual and environmental impacts of underground car parking are minimised.	Y		We confirm compliance with the requirements. The undercroft parking is naturally ventilated and has strong lines of passive surveillance.
Objective	Objective 3J-5 Visual and environmental impacts of on-grade car parking are minimised.	Y		No on-grade parking is proposed.
Objective	Objective 3J-6 Visual and environmental impacts of above ground enclosed car parking are minimised	Y		No on-grade parking is proposed.
Part 4	Designing the building			
Item	4A Solar and daylight access			
Objective	Objective 4A-1 To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space.	Y		We confirm compliance with the requirements.
Design criteria	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.	Y		We confirm compliance with the requirements. With the addition of "pop-up" roofs to the southern apartments - Units 5 & 6 - the design achieves sunlight to 100% of the apartments. Refer annexure 1 for locations of clerestory windows.
	3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter.	Y		All apartments receive direct sunlight.

Apartment Design Guide - Architect's Assessment

Item	Requirement	Y	N	Comment
Objective	Objective 4A-2 Daylight access is maximised where sunlight is limited.	Y		We confirm compliance with the requirements.
Objective	Objective 4A-3 Design incorporates shading and glare control, particularly for warmer months.	Y		External shade devices are proposed to appropriately shade the building.
Item	4B Natural ventilation			
Objective	Objective 4B-1 All habitable rooms are naturally ventilated.	Y		We confirm compliance with the requirements.
Objective	Objective 4B-2 The layout and design of single aspect apartments maximises natural ventilation.	Y		We confirm compliance with the requirements.
Objective	Objective 4B-3 The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents.	Y		We confirm compliance with the requirements. This is achieved with the addition of the clearstory glazing.
Design criteria	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.	Y		We confirm compliance with the requirements. With the addition of clerestory windows to Units 5 and 6, 66% of apartments achieve natural cross ventilation. Refer annexure 1 for locations of clerestory windows and cross-ventilation diagram.
	2. Overall depth of a cross-over or crossthrough apartment does not exceed 18m, measured glass line to glass line.	Y		We confirm compliance with the requirements.
Item	4C Ceiling heights			
Objective	Objective 4C-1 Ceiling height achieves sufficient natural ventilation and daylight access.	Y		We confirm compliance with the requirements.

Apartment Design Guide - Architect's Assessment

Item	Requirement	Y	N	Comment												
Design criteria	<p>1. Measured from finished floor level to finished ceiling level, minimum ceiling heights are:</p> <table border="1"> <thead> <tr> <th colspan="2">Minimum ceiling height for apartment and mixed use buildings</th> </tr> </thead> <tbody> <tr> <td>Habitable rooms</td> <td>2.7m</td> </tr> <tr> <td>Non-habitable</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 used areas</td> <td>3.3m for ground and first floor to promote future flexibility of use</td> </tr> </tbody> </table> <p>These minimums do not preclude higher ceilings if desired.</p>	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 used areas	3.3m for ground and first floor to promote future flexibility of use	Y		We confirm compliance with the requirements.
Minimum ceiling height for apartment and mixed use buildings																
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Attic spaces	1.8m at edge of room with a 30 degree minimum ceiling slope															
If located in mixed used areas	3.3m for ground and first floor to promote future flexibility of use															
Item	4D Apartment size and layout															
Objective	<p>Objective 4D-1 The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity.</p>	Y		We confirm compliance with the requirements.												
Design criteria	<p>1. Apartments are required to have the following minimum internal areas:</p> <table border="1"> <thead> <tr> <th>Apartment type</th> <th>Minimum internal area</th> </tr> </thead> <tbody> <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> </tbody> </table> <p>The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5 m² each .</p> <p>A fourth bedroom and further additional bedrooms increase the minimum internal area by 12 m² each.</p>	Apartment type	Minimum internal area	Studio	35m ²	1 bedroom	50m ²	2 bedroom	70m ²	3 bedroom	90m ²	Y		We confirm compliance with the requirements.		
Apartment type	Minimum internal area															
Studio	35m ²															
1 bedroom	50m ²															
2 bedroom	70m ²															
3 bedroom	90m ²															

Apartment Design Guide - Architect's Assessment

Item	Requirement	Y	N	Comment
	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.	Y		We confirm compliance with the requirements.
Objective	Objective 4D-2 Environmental performance of the apartment is maximised	Y		We confirm compliance with the requirements.
Design criteria	1. Habitable room depths are limited to a maximum of 2.5 x the ceiling height.	Y		We confirm compliance with the requirements.
	2. In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window.	Y		We confirm compliance with the requirements.
Objective	Objective 4D-3 Apartment layouts are designed to accommodate a variety of household activities and needs.	Y		We confirm compliance with the requirements.
Design criteria	1. Master bedrooms have a minimum area of 10m ² and other bedrooms 9m ² (excluding wardrobe space).	Y		We confirm compliance with the requirements.
	2. Bedrooms have a minimum dimension of 3m (excluding wardrobe space).	Y		We confirm compliance with the requirements.
	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 	Y		We confirm compliance with the requirements.
	4. The width of cross-over or crossthrough apartments are at least 4m internally to avoid deep narrow apartment layouts.	Y		We confirm compliance with the requirements.
Item	4E Private open space and balconies			
Objective	Objective 4E-1 Apartments provide appropriately sized private open space and balconies to enhance residential amenity.	Y		We confirm compliance with the requirements.

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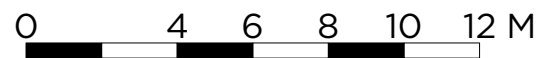
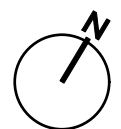
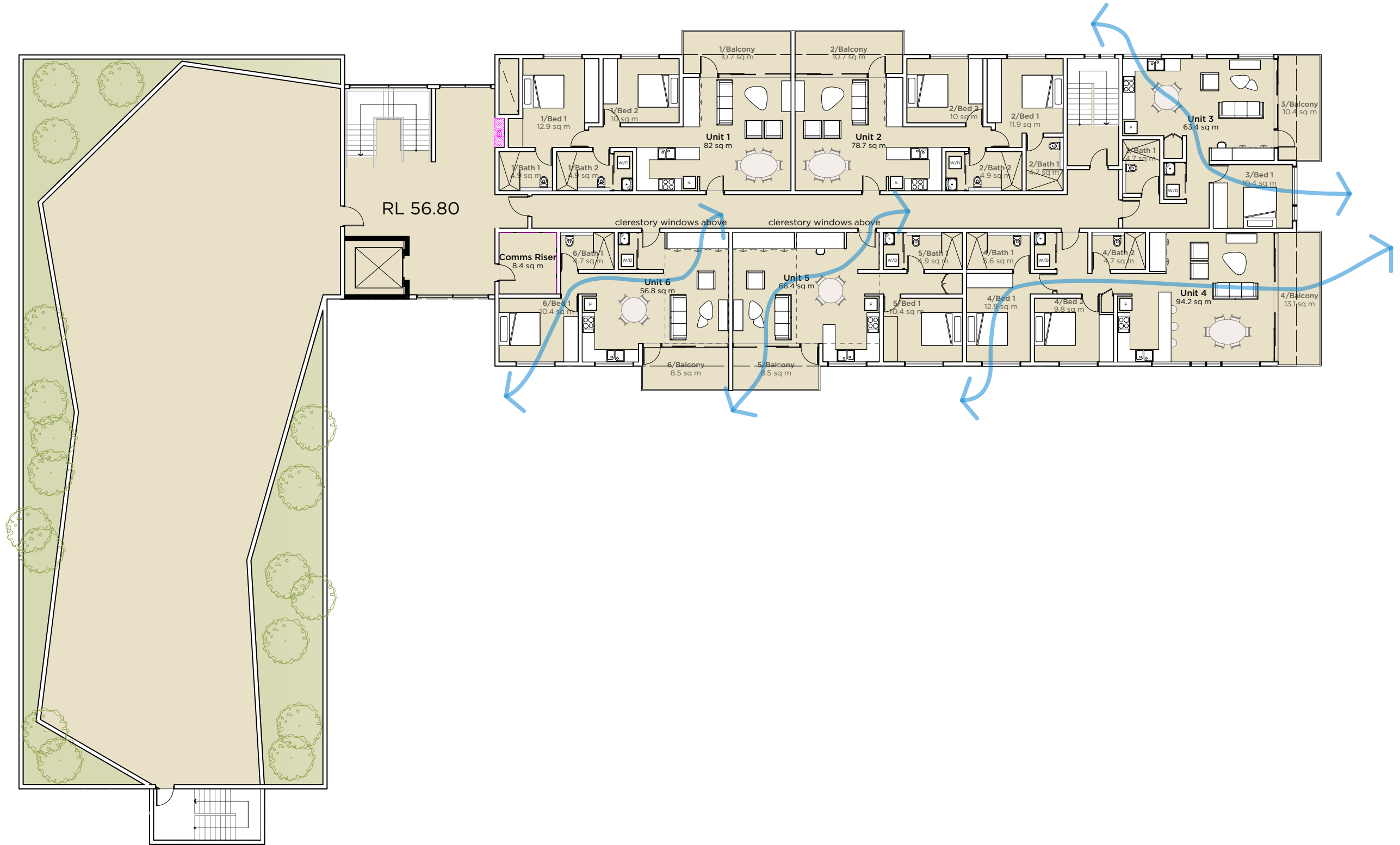
Item	Requirement	Y	N	Comment															
Design criteria	<p>1. All apartments are required to have primary balconies as follows:</p> <table border="1"> <thead> <tr> <th>Dwelling type</th> <th>Minimum area</th> <th>Minimum depth</th> </tr> </thead> <tbody> <tr> <td>Studio apartments</td> <td>4m²</td> <td>'-</td> </tr> <tr> <td>1 bedroom apartments</td> <td>8m²</td> <td>2m</td> </tr> <tr> <td>2 bedroom apartments</td> <td>10m²</td> <td>2m</td> </tr> <tr> <td>3+ bedroom apartments</td> <td>12m²</td> <td>2.4m</td> </tr> </tbody> </table> <p>The minimum balcony depth to be counted as contributing to the balcony area is 1m.</p>	Dwelling type	Minimum area	Minimum depth	Studio apartments	4m ²	'-	1 bedroom apartments	8m ²	2m	2 bedroom apartments	10m ²	2m	3+ bedroom apartments	12m ²	2.4m	Y		We confirm compliance with the requirements.
	Dwelling type	Minimum area	Minimum depth																
Studio apartments	4m ²	'-																	
1 bedroom apartments	8m ²	2m																	
2 bedroom apartments	10m ²	2m																	
3+ bedroom apartments	12m ²	2.4m																	
	<p>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.</p>	Y		There are no apartments proposed on the ground floor or podium level.															
Item	4F Common circulation and spaces																		
Objective	<p>Objective 4F-1 Common circulation spaces achieve good amenity and properly service the number of apartments.</p>	Y		We confirm compliance with the requirements.															
Design criteria	<p>1. The maximum number of apartments off a circulation core on a single level is eight.</p>	Y		There are no more than eight apartments proposed and so compliance is met.															
	<p>2. For buildings 10 storeys and over, the maximum number of apartments sharing a single lift is 40.</p>	Y		The proposed does not exceed ten storeys.															
Item	4G Storage																		
Objective	<p>Objective 4G-1 Adequate, well designed storage is provided in each apartment.</p>	Y		We confirm compliance with the requirements.															

Apartment Design Guide - Architect's Assessment

Item	Requirement	Y	N	Comment										
Design criteria	<p>1. In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:</p> <table border="1"> <thead> <tr> <th>Dwelling type</th> <th>Storage size volume</th> </tr> </thead> <tbody> <tr> <td>studio apartments</td> <td>4m³</td> </tr> <tr> <td>1 bedroom apartments</td> <td>6m³</td> </tr> <tr> <td>2 bedroom apartments</td> <td>8m³</td> </tr> <tr> <td>3+ bedroom apartments</td> <td>10m³</td> </tr> </tbody> </table> <p>At least 50% of the required storage is to be located within the apartment.</p>	Dwelling type	Storage size volume	studio apartments	4m ³	1 bedroom apartments	6m ³	2 bedroom apartments	8m ³	3+ bedroom apartments	10m ³	Y		We confirm compliance with the requirements.
Dwelling type	Storage size volume													
studio apartments	4m ³													
1 bedroom apartments	6m ³													
2 bedroom apartments	8m ³													
3+ bedroom apartments	10m ³													
Objective	Objective 4G-2 Additional storage is conveniently located, accessible and nominated for individual apartments.	Y		We confirm compliance with the requirements.										
Item	Acoustic privacy													
Objective	Objective 4H-1 Noise transfer is minimised through the siting of buildings and building layout.	Y		We confirm compliance with the requirements.										
Objective	Objective 4H-2 Noise impacts are mitigated within apartments through layout and acoustic treatment.	Y		We confirm compliance with the requirements can be achieved.										
Item	4J Noise and pollution													
Objective	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.	Y		The design considers the site conditions and the design is appropriate as the site is not located within a noisy or polluted area.										
Objective	Objective 4J-2 Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission.	Y		For the southern apartments, children's play may impact the amenity these dwellings however it is assumed that because the occupants are teaching staff that they will be working during the hours of school operation and will not be effected.										
Item	4K Apartment mix													

Apartment Design Guide - Architect's Assessment

Item	Requirement	Y	N	Comment
Objective	Objective 4K-1 A range of apartment types and sizes is provided to cater for different household types now and into the future.	Y		The mix of one and two bedroom apartments are suitable for the school's use. The proposals comprises of three 2-bedroom apartments (Units 1, 2 & 4); and three 1bedroom apartments (Units 3, 5 & 6).
Objective	Objective 4K-2 The apartment mix is distributed to suitable locations within the building.	Y		We confirm compliance with the requirements.
Item	4N Roof design			
Objective	Objective 4N-1 Roof treatments are integrated into the building design and positively respond to the street.	Y		We confirm compliance with the requirements.
Objective	Objective 4N-2 Opportunities to use roof space for residential accommodation and open space are maximised.	Y		We confirm compliance with the requirements.
Objective	Objective 4N-3 Roof design incorporates sustainability features.	Y		We confirm compliance with the requirements.
Item	4O Landscape design			
Objective	Objective 4O-1 Landscape design is viable and sustainable.	Y		Native plants are proposed which are naturally sustainable.
Objective	Objective 4O-2 Landscape design contributes to the streetscape and amenity.	Y		A vibrant and generous landscape design is proposed.
Item	4S Mixed use			
Objective	Objective 4S-1 Mixed use development are provided in appropriate locations and provide active street frontages that encourage pedestrian movement.	Y		We confirm compliance with the requirements.
Objective	Objective 4S-2 Residential levels of the building are integrated within the development, and safety and amenity s maximised for residents.	Y		We confirm compliance with the requirements.



— Indicative cross-ventilation

Plan-Level 3

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